Resident Physician

JOURNAL FOR THE HOSPITAL STAFF OFFICER

How to Make Your Charts Complete ...and Legal

October 1960, Vol. 6, No. 10

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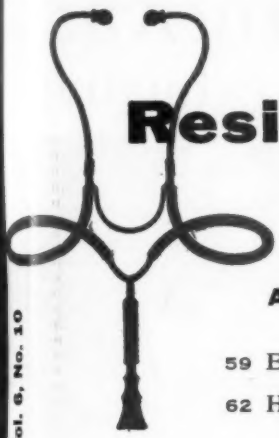

Resident Physician

October 1960, Vol. 6, No. 10

Articles

The Resident Physician is published monthly on the fifteenth by The Resident, Inc., with publication offices at 34 North Crystal Street, East Stroudsburg, Pennsylvania. Executive, advertising and editorial offices at 1447 Northern Boulevard, Manhasset, New York. If undelivered, please send form 3547 to Resident Physician, 1447 Northern Boulevard, Manhasset, New York.

announcing "Timovan"
Brand of Prothipendyl hydrochloride

completely new calmative

for the temperamental older patient

for the emotional teen-ager

Specifically developed for active patients in need of calming without the "slow-down" of sedatives or the hazards of many tranquilizers. "TIMOVAN" offers a new range of safety and effectiveness in the relief of tension in the ambulatory patient, notably the adolescent and the geriatric. Particularly valuable in conditions in which excessive emotional response complicates therapy, as in dermatoses and allergies.[1-4]

- Reduces excessive response to irritating stimuli.
- Stabilizes the autonomic nervous system.
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- No sensitivity reactions or toxicity reported.
- Has not given rise to drug tolerance even on prolonged use.
- Nonaddictive.
- Preferred to barbiturates.

DOSAGE: One or two tablets three or four times daily. Depending on age of patient and severity of symptoms, dosages ranging from 100 mg. to 400 mg. daily (in divided doses) have been used effectively and safely.

CONTRAINDICATIONS: Not to be used in cases of acute alcoholism or barbiturate poisoning.

SUPPLIED: "TIMOVAN" No. 739 — 25 mg. tablets. No. 740 — 50 mg. tablets. Bottles of 100 and 1,000.

REFERENCES: 1. Medical Records of Chemiewerk Homburg A/G. 2. Linke, H.: München. med. Wchnschr. **100**:969 (June 20) 1958. 3. Quandt, V. J., Von Horn, L., and Schliep, H.: Psychiat. et Neurol. **135**:197 (Mar.) 1958. 4. Medical Records of Ayerst Laboratories.

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Resident Physician

Departments

'B. W. & CO.' 'Sporin' Ointments rarely sensitize... give decisive bactericidal action for most every topical indication

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brand Ointment

Broad-spectrum antibacterial action—plus the soothing anti-inflammatory, antipruritic benefits of hydrocortisone.

The combined spectrum of three overlapping antibiotics will eradicate virtually all bacteria known to be found topically.

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A basic antibiotic combination with proven effectiveness for the topical control of gram-positive and gram-negative organisms.

Contents per Gm.	'Polysporin'®	'Neosporin'®	'Cortisporin'®
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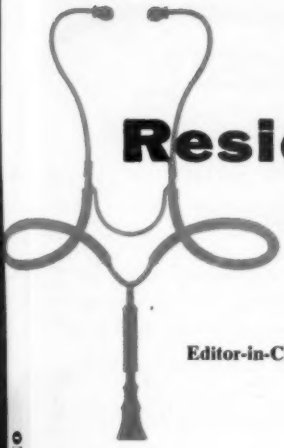
Zinc Bacitracin	500 Units	400 Units	400 Units
Neomycin Sulfate	—	5 mg.	5 mg.
Hydrocortisone	—	—	10 mg.
Supplied:	Tubes of 1 oz., ½ oz. and ⅛ oz. (with ophthalmic tip)	Tubes of 1 oz., ½ oz. and ⅛ oz. (with ophthalmic tip)	Tubes of ½ oz. and ⅛ oz. (with ophthalmic tip)

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New Yo

Journal for the Hospital Staff Officer

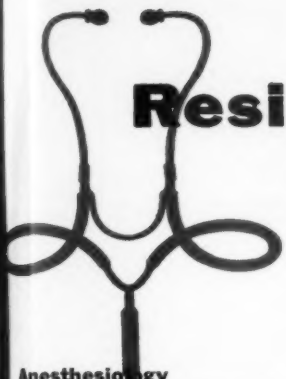


Resident Physician

October 1960, Vol. 6, No. 10

Articles are accepted for publication with the understanding that they are contributed solely to this publication, and will directly interest or be of practical value to resident physicians and interns. When possible, two copies of the manuscript should be submitted.

West Coast Representative: Ren Averill, Ren Averill Company, 232 North Lake Avenue, Pasadena, California. Subscription rate $10.00 per year. Single copies $1.00. Notify publisher promptly of change of address.



Resident Physician

Anesthesiology

J. ADRIANI, M.D., Director, Department of Anesthesiology, Charity Hospital of New Orleans.

MAX S. SADOVE, M.D., Director, Department of Anesthesiology, University of Illinois.

Dermatology

MARION B. SULZBERGER, M.D., Professor and chairman, Department of Dermatology and Syphilology, New York University Postgraduate Medical School.

General Practice

C. WESLEY EISELE, M.D., Chief, General Practice Residency Program, University of Colorado.

GEORGE ENTWISLE, M.D., General Practice Program, University Hospital, Baltimore.

Medicine

WILLIAM B. BEAN, M.D., Professor of Medicine, University of Iowa Medical School.

CHARLES DAVIDSON, M.D., Associate Professor of Medicine, Harvard Medical School.

C. WESLEY EISELE, M.D., Associate Professor of Medicine; Assistant Dean in Charge of Post Graduate Medical Education, University of Colorado.

CHARLES L. LEEDHAM, M.D., Director of Education, Cleveland Clinic, Frank E. Bunts Educational Institute.

JOHN C. LEONARD, M.D., Director, House Staff Education, Hartford Hospital.

Obstetrics-Gynecology

ALAN F. GUTTMACHER, M.D., Director, Department of Obstetrics and Gynecology, Mt. Sinai Hospital, New York City.

Ophthalmology

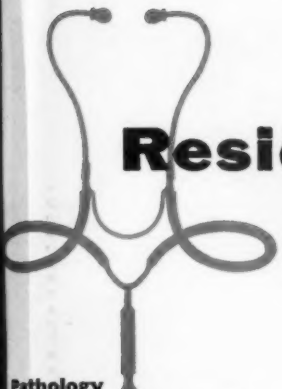
DERRICK T. VAIL, M.D., Chairman, Department of Ophthalmology, Northwestern University Medical School.

Orthopedics

HAROLD A. SOFIELD, M.D., Professor of Orthopedic Surgery, Northwestern University Medical School.

Otolaryngology

DEAN M. LIERLE, M.D., Chief, Department of Otolaryngology and Maxillofacial Surgery, State University of Iowa.



Resident Physician

The Dieter

–and a natural way to meet their special nutrition needs with low-calorie, satisfying Carnation Instant

Unappetizing meals and simple fatigue from inadequate nourishment can discourage patients from staying with a weight-control diet.

A fresh-flavor, delicious, and *natural* way to help assure their good nutritional status is the excellent new food–*new Carnation Instant Nonfat Dry Milk mixed 25% over-strength.*

One-third cup extra crystals per liquid quart when mixing provides 25% more calcium, protein, and B-vitamins than ordinary nonfat milk. Because dieters can add this additional amount, they get *needed* nutrition – *without* excessive calories. The richer, more delicious flavor of nonfat milk mixed over-strength is a *natural* way to the *extra* nutrition they will enjoy. And it costs them only 12¢ a quart.

ANOTHER QUALITY PRODUCT OF CARNATION COMPANY, LOS ANGELES 36, CALIFORNIA

Therapeutic Reference

The following index contains all the products advertised in this issue. Each product has been listed under the heading describing its major function. By referring to the pages listed, the reader can obtain more complete information. All products are registered trademarks, except those with an asterisk (*).

an added measure of protection for little patients

against relapse
against "problem" pathogens

DECLOMYCIN®

DEMETHYLCHLORTETRACYCLINE LEDERLE

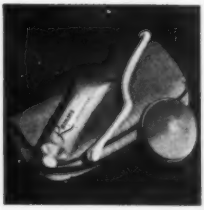
pediatric drops
syrup

● full antibiotic activity ● lower milligram intake per dose ● up to 6 days' activity with 4 days' dosage ● uniformly high, sustained peak activity ■ **syrup** (cherry-flavored), 75 mg./5 cc. tsp., bottles of 2 and 16 fl. oz. Dosage: 3 to 6 mg./lb./day—in four divided doses. **pediatric drops,** 60 mg./cc., 3 mg./drop, 10 cc. bottles with calibrated dropper. Dosage: 1 to 2 drops/lb./day—in four divided doses

PRECAUTIONS: As with many other antibiotics, DECLOMYCIN may occasionally give rise to glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis or dermatitis. A photodynamic reaction to sunlight has been observed in a few patients on DECLOMYCIN. Although reversible by discontinuing therapy, patients should avoid exposure to intense sunlight. If adverse reaction or idiosyncrasy occurs discontinue medication. Overgrowth of nonsusceptible organisms is a possibility with DECLOMYCIN, as with other antibiotics. The patient should be kept under observation.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

A "fitting" concern for the new mother ...time



A new baby in the family, whether the first or the fourth, makes it necessary for the whole family, particularly the mother, to adjust. For this, time is needed.

Your postpartum patient looks to you for advice on the best way to plan ahead.

Security — two ways

She experiences special physical comfort when you prescribe either the regular RAMSES® Diaphragm or the new RAMSES BENDEX,® an arc-ing type diaphragm.

The regular RAMSES Diaphragm, suitable for most women, is made of pure gum rubber, with a dome that is unusually light and velvet smooth. The rim, encased in soft rubber, is flexible in all planes permitting complete freedom of motion.

For those women who prefer or require an arc-ing type diaphragm, the new RAMSES BENDEX embodies all of the superior features of the conventional RAMSES Diaphragm, *together with the very best hinge mechanism contained in any arc-ing diaphragm.* It thus affords lateral flexibility to supply the proper degree of spring tension without discomfort.

For added protection — RAMSES "10-Hour" Vaginal Jelly*

To give your patient the full protection of the diaphragm and jelly method — at least 98 per cent effective[1] — RAMSES Jelly is uniquely suited for use with either type of RAMSES Diaphragm. It is not static, but flows freely over the diaphragm rim to add lubrication and form a spermtight seal maintained for *ten full hours.* It is nonirritating and nontoxic.

You can now prescribe a complete unit with either type of diaphragm. RAMSES "TUK-A-WAY"® Kit #701 contains the regular RAMSES Diaphragm with Introducer and a 3-ounce tube of RAMSES Jelly; the #703 Kit contains the RAMSES BENDEX Diaphragm and Jelly. Each in attractive zippered case. At all prescription pharmacies.

Reference: 1. Tietze, C.: Proceedings, Third International Conference Planned Parenthood, 1953.

RAMSES, BENDEX, and "TUK-A-WAY" are registered trade-marks of Julius Schmid, Inc.

*Active agent, dodecaethyleneglycol monolaurate 5%, in a base of long-lasting barrier effectiveness.

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Ramses® Diaphragm and Jelly

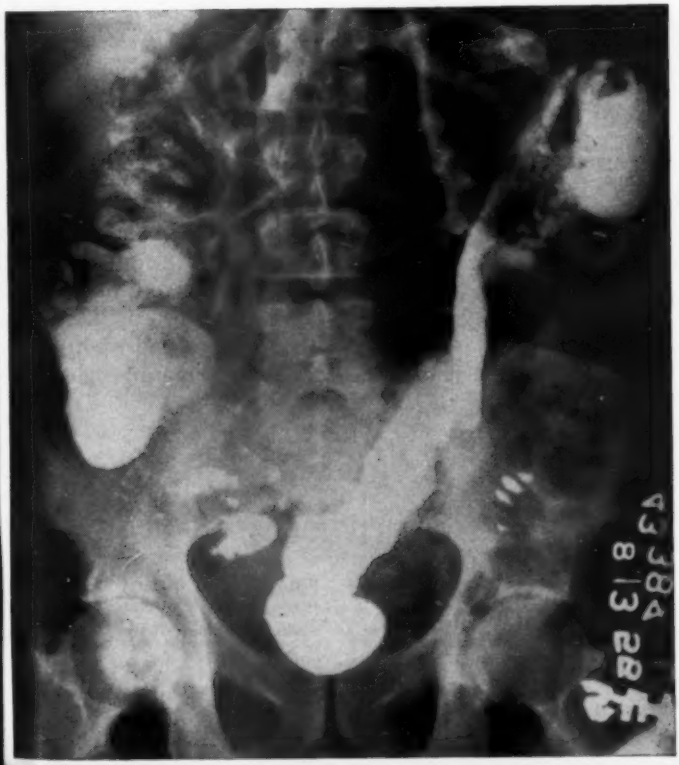
Viewbox Diagnosis

Edited by Maxwell H. Poppel, M.D., F.A.C.R.,
Professor of Radiology, New York University College of Medicine
and Director of Radiology, Bellevue Hospital Center

Which is your diagnosis?

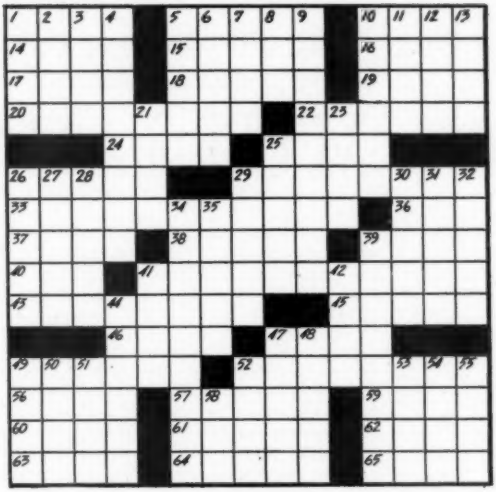
1. Normal
2. Lesion in the sigmoid
3. Volvulus
4. Perforation

(Answer on page 186)



Resident Relaxer

(Solution on page 186)



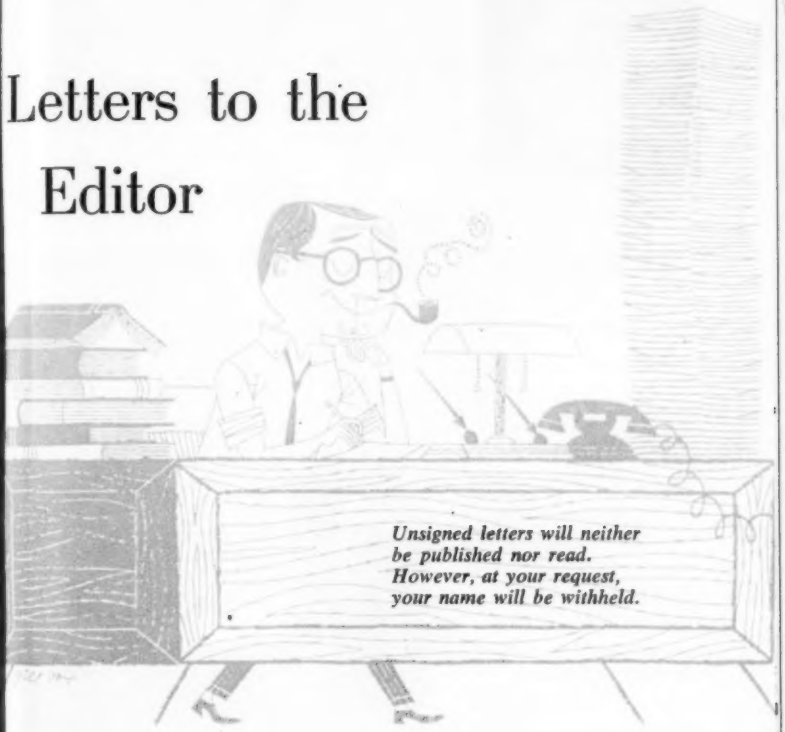
ACROSS

1. Be dull or spiritless
5. Contains skin disease
10. Half (Prefix)
14. Proprietary food containing no iron and rich milk albumin
15. Swelling
16. Vomiting (Comb. form)
17. Suffix indicating compound of sugar and other substance
18. —— Plates, used in open reduction of fractures
19. Monetary unit of Italy (Pl.)
20. Dwarfism
22. English dentist whose name is associated with the incremental lines of dentin
24. Kidney (Comb. form)
25. Pertaining to Denmark (Comb. form)
26. Stage of a disease
29. Screenings
33. Suborder of Hemiptera
36. Crude metal
37. Persian poet
38. Girl's name
39. Scrutinize
40 Musical instrument (Abbr.)
41. Inflammation of fibrous covering of bone
43. Resembling hardened forewing of an insect
45. Useful
46. Borders
47. Proprietary disinfectant
49. Source of oil of benne
52. Remedy for pain
56. Derived from ammonia
57. Interdiction
59. ——, pain (Span.)
60. Class occurring with greatest frequency in a series of variables
61. King of Moab, oppressor of Israelites
62. Knee
63. The lower lateral nasal cartilage
64. Long and slender
65. Affirmatives

DOWN

1. Muscle
2. Bone (Pl.)
3. Albuminoid substance in pus
4. Signar
5. Paronychia
6. Canadian pathologist (1861-1926): theory explaining heredity
7. Vein (Lat.)
8. Leg——, bean
9. Genus of lauraceous tree of North America, the root bark of which is aromatic, stimulant, diaphoretic, and carminative
10. Guardian of the oracle of Zeus at Dodona (Gr. myth.)
11. Exude
12. Lake or pool
13. Tubular passage
21. Prophet
23. ——cid, Aluminum Hydroxide is one
25. Prescribed rules for eating (Comb. form)
26. Any subjective sensation, as of light in color
27. Pertaining to the blood
28. Failure of muscular coordination (var.)
29. Sedate
30. Night (Comb. form)
31. Chalice
32. Faculty of perception
34. Instrument for testing the purity of oil
35. ——talsis, intestinal propulsive movements
39. Sum of knowledge regarding food, diet, nutrition
41. Formally precise
42. ——remia, Francis' disease
44. Dissecting instrument
47. Fillet worn around hair
48. Lack of normal strength
49. ——ritan, one who is compassionate to a fellow in distress
50. Emollient mineral
51. Genus of tropical herbs yielding demulcents
52. Competent
53. Delight
54. Small island north of Scotland, early center of Celtic church
55. The shank
58. Grow older

Letters to the Editor



Unsigned letters will neither be published nor read. However, at your request, your name will be withheld.

ECFMG Exemption

In the newspaper of American Medicine, May 30, 1960, there is an article about foreign graduates' examinations. It is written by Dr. Crosby, Director of AHA, that foreign graduates who are not in situations where they give direct care to the patient, i.e., research, etc., are exempt from certification.

Will you kindly let us know what specific situations Dr. Crosby referred to? Is pathology and radiology also in this exemption. Please answer this in the RESIDENT PHYSICIAN; I am sure many of the foreign doctors are in doubt at the present time.

L. F. MING, M.D.
SAN FRANCISCO, CALIF.

—Continued on page 34

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WITH YOUR CHOICE OF TERMS TAILORED TO FIT POCKETBOOK AND PURPOSE

A. S. Aloe Company's variety of financing plans, and 99 years experience in financing young physicians make it easy to have that office equipped RIGHT from the start . . . the way you want it, with the finest equipment, without a down payment, if desired.

MAIL COUPON NOW . . .

for complete details on the various financing plans that fit the payments to your buying preferences, information regarding our General Catalog, and a helpful article on equipment needs.

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I would like to receive details on (1) your financing plan; (2) information regarding your General Catalog; (3) and your article, "What Will I Need To Set Up Practice?"

I plan to enter practice in _____ (Year)

Name _____

Title _____

Hospital _____

Address _____

City _____ Zone ____ State _____

sprained wrist

Analgesics alone merely mask pain. New Medaprin adds Medrol* to suppress the inflammation that *causes* the pain and stiffness. Thus, to the direct relief of musculoskeletal pain,

Medaprin

adds restoration of function.

Medaprin is supplied in bottles of 100 and 500 tablets.

Each tablet contains:

Medrol (methylprednisolone)	1 mg
Acetylsalicylic Acid	300 mg (5 grs.)
Calcium Carbonate	200 mg

THE UPJOHN COMPANY
KALAMAZOO, MICHIGAN

Upjohn

*Trademark, Reg. U.S. Pat. Off.

—Continued from page 31

• *Dr. Dean F. Smiley, Executive Director of the E.C.F.M.G., has answered your question as follows: "Residents in pathology and radiology are considered to be in clinical care positions, since it is upon their diagnoses that much of the clinical treatment is built. Of course, there are instances in which individuals are doing research on animals and are handling no patients, and making no diagnoses on human patients. In those instances, no certification would be needed."*

House Staff Wives

I am president of the Intern-Resident Wives' Association of Los Angeles County General Hospital. Would you be interested in a series of articles by the various Wives' Clubs throughout the country? I know there are many such groups that could furnish interesting material as to their function, activities, and individual difficulties. It would be interesting to read about the other groups and certainly we could all learn from each other. Every wife I know reads RESIDENT PHYSICIAN

—Continued on page 40

—*Continued from page 34*

as soon as her husband brings it home so I am certain this series would invite interest.

MRS. JOSEPH LEFF
LOS ANGELES COUNTY
GENERAL HOSPITAL

• *We are definitely interested. Over the past five years we have from time to time requested the wives of residents to send us comments and articles of interest not only to their husbands, but to other wives. As a result, we have received a number of fine articles. We will be happy to make another formal request to all Intern-Resident Wives' Associations to send us material that they feel would be of interest to residents and interns and their wives.*

We have always felt that Resident Physician is a special kind of journal in that we publish material of direct medical interest to residents and interns and we also deal with subjects not strictly medical which we feel are of direct value to thousands of doctors (and wives) in training throughout the U.S. We're ready ladies. Start writing!

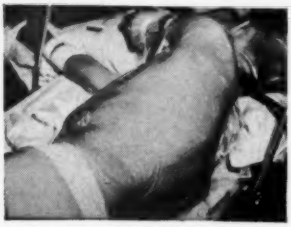
—*Continued on page 48*

Basic technic When freshly "prepped" skin is dry, Vi-Hesive Adherant is sprayed on to an even pink tint from about 12" distance. Sterilized Vi-Drape Film is held taut over proposed operative area then smoothly molded by hand to site and wide adjacent skin area. Photo courtesy Ralph Adams, M.D.

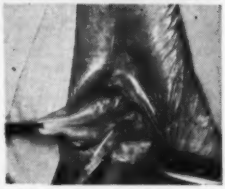
Sealing off the contaminated colostomy or ileostomy, and yet having it visible while exploring a new operative field, is made possible by the application of Vi-Drape Film to the entire area. Photo courtesy of Robert M. Zollinger, M. D., William G. Pace, M. D. and Marjorie J. Reed, R. N., Columbus, Ohio.

Visibility of landmarks, maintenance of asepsis in operative areas previously hard-to-drape, and isolation of the entire operative zone are particular surgical advantages of using Vi-Drape Film in neurosurgery. Illustrative is the isolation of the cervical occipital area for laminectomy shown above. Photo courtesy Arthur B. Eisenbrey, M. D., Detroit, Mich.

Smooth molding and close adherence of the plastic film to the difficult contour of the hip, provides an aseptic operative area previously considered almost impossible to achieve. Vi-Drape Film clings closely to the skin throughout long procedures. Photo courtesy Chas. G. Lovingood, M. D., Frank L. Shively, Jr., M. D. and Albert M. Storrs, M. D., Dayton, Ohio.



Large areas can be sealed off for thoracic or cardiovascular surgery without hiding landmarks. Neck and shoulders are completely isolated from the incision. A cleaner, drier operative field is possible using Vi-Drape Film. When Aeroplast Surgical Dressing is used postoperatively, evaluation of healing can be made without removing dressings. Photo courtesy Curtis P. Artz, M.D., Jackson, Miss.



Isolation of the anal area from the vaginal orifice during correction of prolapse of the vaginal vault avoids contamination by fecal extrusions.

Exteriorized vaginal vault is protected from contamination by Vi-Drape Film clinging closely to vaginal orifice during procedure and by isolation of the anus. Photos courtesy C. Paul Hodgkinson, M. D., Detroit, Mich.

To prevent trauma, desiccation and infection — Vi-Drape Film is frequently used as a protective wrap for exposed organs as shown above holding intestines during an aortic graft. Photo courtesy Chas. G. Lovingood, M. D., Frank L. Shively, Jr., M. D. and Albert M. Storrs, M. D., Dayton, Ohio

Would you like to see a full-color sound motion picture further illustrating the application of Vi-Drape Film in varied surgical procedures? The film, "A New Transparent Plastic Surgical Drape," produced by Robert M. Zollinger, M.D., William G. Pace, M.D. and Marjorie J. Reed, R.N., at Ohio State University Department of Surgery, is available for showing to all members of the surgical team.

Please send requests to:
AEROPLAST CORPORATION
Station A—Box 1, Dayton 3, Ohio

Vi-Drape® Film, Vi-Hesive® Adherant-Pats. Pend.
Aeroplast® Dressing-U.S. Pat. No. 2,804,073

All photos shown are of actual procedures.

—*Continued from page 40*

Foreign Study

About two or three years ago there appeared in the RESIDENT PHYSICIAN an article describing the opportunities available to the physician for postgraduate study and training in foreign countries, and giving the names and addresses of various institutions and organizations which offer fellowships or other means of financial aid for such training abroad.

The information in this article would be of great help to me now, but I have been unable to locate it. Could you send me a reprint of this article? If you have no reprints available, could you tell me where I can find it, or could you supply the information given in the article?

I would appreciate your kind attention to this matter.

L. K. WANDERMAN, M.D.
GALVESTON, TEX.

Extend Visit

I would appreciate it very much if you could advise me as to what I could do to prolong my stay in the U.S.A. for an additional year. I am an exchange visitor and will have completed five years of training in this country in October. However, I am now training in anesthesiology as of January and this training will not be completed until December, 1961.

I completed a residency in internal medicine but before I return to my country, I would also want to improve my ability in anesthesiology. I passed the ECFMG.

NAME WITHHELD
AT WRITER'S REQUEST

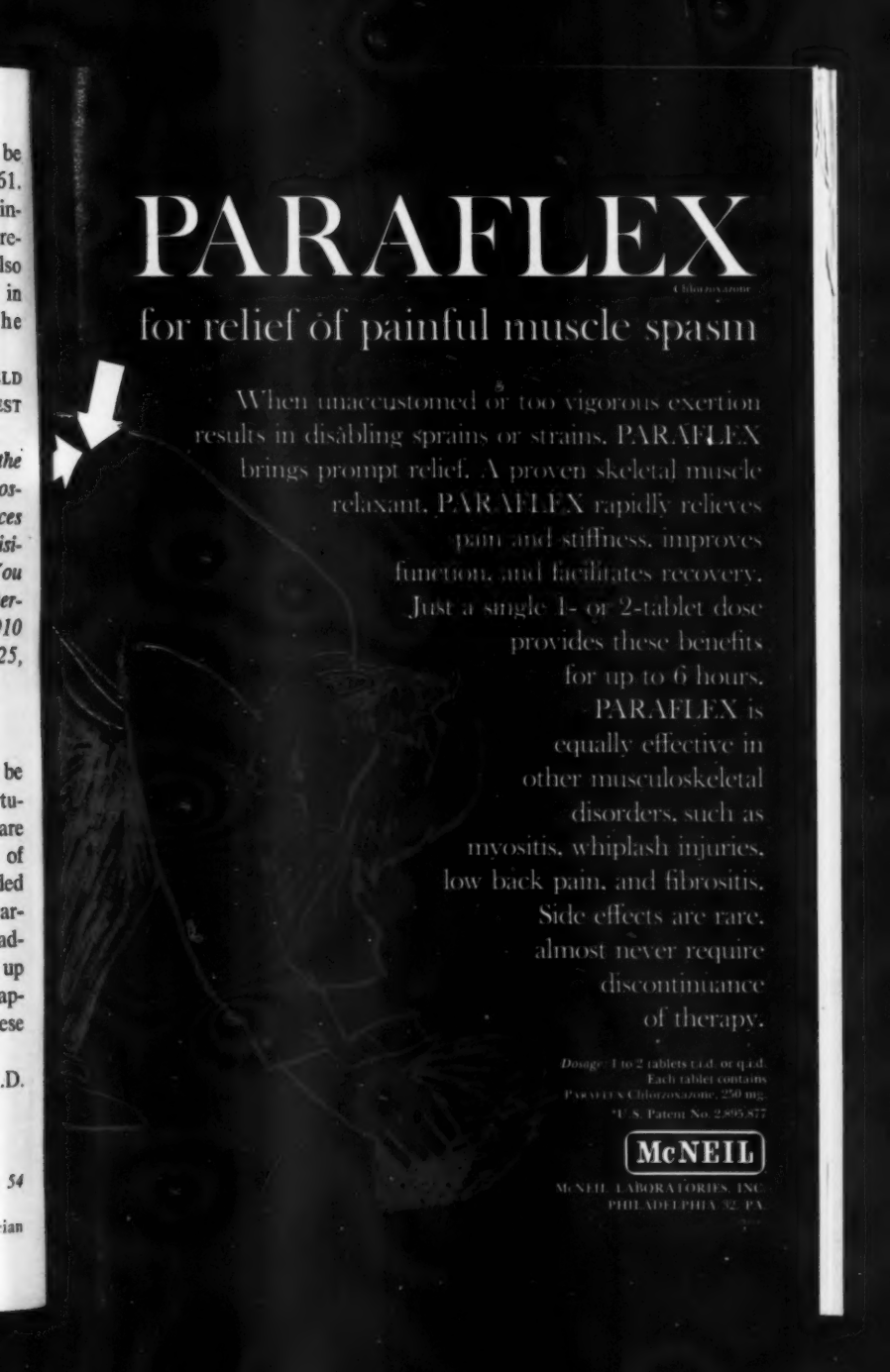
• *Under the laws controlling the Exchange Visitor Act, it is possible "under special circumstances of study" for the exchange visitor's visa to be extended. You may write the Director of International Exchange Service, 1910 K Street N.W., Washington 25, D. C. for further information.*

Contest Comment

. . . Our house staff will be urged to participate. Unfortunately, however, our journals are kept in an open-shelf division of the library which is not attended regularly by our Medical Librarian. If others observe that reading of the journals does pick up during the contest, we shall happily let you know about these impressions.

R. G. B. BJORNSON, M.D.
CHAIRMAN, INTERN COMMITTEE
BETHESDA LUTHERAN HOSPITAL
ST. PAUL, MINN.

—*Concluded on page 54*


PARAFLEX
Chlorzoxazone
for relief of painful muscle spasm
When unaccustomed or too vigorous exertion results in disabling sprains or strains, PARAFLEX brings prompt relief. A proven skeletal muscle relaxant, PARAFLEX rapidly relieves pain and stiffness, improves function, and facilitates recovery. Just a single 1- or 2-tablet dose provides these benefits for up to 6 hours.
PARAFLEX is equally effective in other musculoskeletal disorders, such as myositis, whiplash injuries, low back pain, and fibrositis.
Side effects are rare, almost never require discontinuance of therapy.
Dosage: 1 to 2 tablets t.i.d. or q.i.d.
Each tablet contains PARAFLEX Chlorzoxazone, 250 mg.
*U. S. Patent No. 2,895,877
McNEIL
McNEIL LABORATORIES, INC.
PHILADELPHIA 32, PA.

—Concluded from page 48

. . . Your idea for encouragement . . . of reading among House Officers . . . is a most attractive one. I am writing a letter to my own House Staff calling their attention to it . . .

RICHARD T. SHACKELFORD, M.D.
BALTIMORE, MARYLAND

I have been very much interested in your contest for interns and residents entitled, "It Pays To Read." This certainly should be a fine stimulus to more reading by the intern and resident and better reading habits the rest of his life.

HOWARD E. SNYDER, M.D.
WINFIELD, KANSAS

. . . I hope that the contest, "It Pays To Read," will be successful. For the past seven years, I have been in charge of the administration of our Intern Program, and in the years that I was privileged to receive your fine journal, I found it very useful. Our congratulations to you and your staff for a fine idea — and our sincere thanks for making RESIDENT PHYSICIAN available.

A. ALLEN WEINTRAUB
ASSISTANT ADMINISTRATOR
ST. VINCENT INFIRMARY
LITTLE ROCK, ARKANSAS

I think that the "Mediquiz" which you have organized is wonderful, and I am urging all the members of my residency staff to participate.

HERBERT CONWAY, M.D.
ATTENDING SURGEON-IN-CHARGE
OF PLASTIC SURGERY
THE NEW YORK HOSPITAL
NEW YORK CITY

. . . Your interest in the reading habits of Interns and Residents finds me in complete accord. We have a residency training program here . . . where regular naval medical officers . . . are pursuing a two-year program of advanced training in preparation for Board certification in Aviation Medicine by the American Board of Preventive Medicine . . . I should like to have these residents placed on the mailing list for the RESIDENT PHYSICIAN if they are not already receiving it. I would also appreciate being added to the mailing list.

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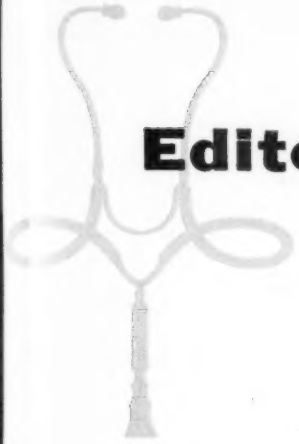

Editor's Page

Our Unlearned Profession

To me it is always intriguing to consider the bastardization of our very useful language by members of our profession who, for one reason or the other, feel that such a process produces a clarification of ideas, or that it makes the individual using the term appear "learned" to his peers. I cannot help but feel that most who indulge in this process, do so unknowingly, because they accept the use of a word as being perfectly correct, and never take the trouble to evaluate its meaning. This process becomes at one and the same time more amusing or more saddening (depending upon how you look at it) when an individual, say at a meeting of the American Society for Clinical Investigation, presents the most precise and carefully evaluated scientific data, in terms which indicate clearly that in the use of his native language, the speaker does not know what he is talking about, because he has never been interested in evaluating the meaning of words, and parrots them innocently with complete confidence that his presentation is a *"learned"* one.

During the past four or five years, one hears and sees an increasing use of the words "parameter" and "modality" in

medical speaking and writing. It would be of great interest if one could pick up the first misuses of these two words. If one looks up their meanings in *Webster's International Dictionary* (Second Edition, G. and C. Merriam Co., Springfield, Mass.) one finds the following definitions:

Parameter

"1. Astrol. An element of an orbit.

2. Cryst. The relative intercept made by a plane on a crystallographic axis.

3. Math. *a.* An arbitrary constant characterizing by each of its particular values some particular member of a system of expressions, curves, surfaces, functions, etc.; *b.* An independent variable through functions of which may be expressed other variables as the co-ordinator of a locus. *c.* In conics the third proportional to any diameter and its conjugate, or in the parabola, to any abscissa and the corresponding ordinate. The parameter of the principal axis of a conic is called the *latus rectum,* or principle parameter or simply parameter."

Now with these definitions in mind can you blame your Editor for still being extremely puzzled over what a brilliant young medical scientist meant when he said some months ago "without doubt these data open up a new and interesting *parameter* (italics mine) in the etiology of hypertension"?

Let's now go on to a short study of the use of the term "modality." Again we turn to *Webster's International Dictionary.*

Modality

"Quality or state of being modal (consisting in or pertaining to form rather than substance). A modal quality, attribute, circumstance, a matter of mode or method.

Logic. That qualification of proposition according to which they are distinguished as assisting (or denying) the possibility, impossibility, contingency, or necessity of their content.

Med. Any one of several agencies used in physical therapy, as diathermy, high frequency currents, etc., also, any type of apparatus for applying such agencies.

Psychology. One of the main types of sensation as visual, auditory, olfactory, gustatory, or tactile."

Here again with these definitions in mind the Editor is still puzzled by what a peer of his meant when he rather ostentatiously and pedantically stated: "It was fortunate for this patient that the newer *modalities* in the therapy of edema, chlorothiazide and aldactone, were available!" Obviously, neither of the two can possibly be a *"modality."*

While one of the outstanding characteristics of the American language is its vigor, sturdiness and its ability to grow, the newer uses for words must at least bear a semblance of legitimacy. As members of a profession which we hope will still be termed "learned," it behooves all of us in our speaking and writing to make our words say what we want them to say. Otherwise, our attempts to communicate one to the other, or to our public, will become chaotic.

NEWS BULLETIN — DOCTOR DRAFT COMING?

Not Enough Volunteers. As we go to press, Resident Physician has just learned that because of a "poor response" to the recent Berry Plan, it appears at this writing that the Department of Defense will request Selective Service to draft "several hundred young physicians" next July 1st.

How to Make Your Chart Co

Any entry in your patient's chart which is dated and signed by you takes legal precedence over the patient's memory of what occurred. Therefore, your patient records should contain sufficient detail to:

- Establish the probable etiology.
- Justify your diagnosis.
- Delineate the treatment.

In your private practice, these three rules apply equally to house calls, office visits or telephone conversations.

To enter: *"Mrs. X called. Has U.R.I.,"* has little medical value from either your own or your patient's standpoint. Such a notation would certainly have limited significance if your chart was being reviewed for any cause.

You should *record* sufficient signs and symptoms, however

Few things are as important in hospital or private medical and surgical care as complete, concise patient charts. Yet, what should be included and what can be safely eliminated from the written record is often a source of confusion and disagreement among house staff and attendings. Here is the first in a special series of original articles on patients' records by Mary Westover who bases her suggestions on many years of handling such records in one of the nation's largest teaching hospitals.

Complete . . . and Legal

Mary D. Westover

minor, to justify your diagnosis. And you should *record every phase of the treatment you ordered, whether medication or nursing care.*

Taking a medical history is often your best opportunity to establish rapport with a prospective patient. The completeness with which you perform and *record* both the history and your initial examination not only determines your patient's impression as to the degree of your interest in him, but also establishes his respect for your professional thoroughness and ability, a vital factor in the effectiveness of your therapy for him.

You will usually find that he is flattered to sign a release permitting you access to past treatment and findings—and in reviewing this data is when you

» *This is not an individual, but a composite work. For a number of years I have had an opportunity to observe the phrasing of the more successful surgeons, as well as the deficiencies in records which had to be reviewed by doctors other than those who had originally cared for the patient. Learning what the second doctor wished the first doctor had included, I began suggesting items to the newer doctors so that they would include them in their charting. Later, I expanded these ideas into a list for 1) the intern or resident who is still learning how to make his charting complete, 2) the general practitioner in an isolated com-*

will begin to appreciate the records of the careful physician.

Medical terms

Be sure that all your entries on charts are 1) completely objective, and 2) couched in medical terminology rather than in the vernacular.

Make your statements from the standpoint of a doctor, not a judge. You are concerned with physical findings, not the degree of social nonconformity.

Such words as "hangover" or "admits" are more definitive from an ethical than a medical standpoint. The first should be in quotes if used by the patient; if used as descriptive by you it is neither exact nor strictly professional. The second should preferably be "states," which carries no implication that it is the confession of a transgressor. (Many terms like these have been abused for years. Perhaps at one time, they accurately reflected the condition of patient-doctor cross interrogation as a battle of wits, but they have no place in today's medical histories.)

Fee appraisal

Properly kept patient charts are valuable to you when the medical data are reviewed for any cause. They also give a much better basis for an unbiased appraisal of the fairness of the fees you have charged—and to justify to a disgruntled patient the correctness of such charges.

How long should you keep a patient's records? As long as *you* live, say most attorneys. Remem-

munity who is confronted with a problem which he has not recently handled but who must treat the patient, and 3) the older practitioner who rationalizes that thorough charting is not essential for him—but who is forced to fit his patients' needs into the time he has available—and is looking for short cuts.

I have utilized the suggestions of many physicians, all board certified specialists with several years of urban practice. To each of these doctors and to the hundreds of interns and residents whose problems and cooperation have given my life meaning, I express my thanks.

M. D. W.

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ber, with pediatric patients the doctor's responsibility extends to the majority of the child plus the statute of limitations for the state in which he is practicing.

Reporting trauma

Every traumatic incident has potential legomedical aspects. You should be particularly careful of all entries pertaining to trauma.

Record the patient's statement as to the cause of the accident or the circumstances surrounding it, giving

- Date and approximate time of the accident
- Date and approximate time of your initial examination

Use some such phrases as, "history given by . . . ," "patient stated . . ." or "according to. . . ." You were not present, and where any portion of your records can be legitimately questioned, the entire record is in relative jeopardy.

There is sometimes hidden trauma which cannot definitely be ruled out, either clinically or by x-ray. Where this is suspected, the patient should be instructed, *of record,* to have periodic check ups.

In recording systemic condition, apart from trauma, keep these rules in mind:

If you have a previous chart on the patient, some such statement as, "given elsewhere in the chart," or "no significant changes," is sufficient in most cases. If you have no previous record, and for some reason a complete physical is contraindi-

cated, use a phrase such as "in keeping with the patient's age *except* . . . , " and note any systemic condition which would be pertinent to the etiology, treatment or prognosis. Later a complete physical examination substantiating this impression should be done and recorded. (If acute alcoholism is pertinent to the accident, this fact should be indicated. How to chart this syndrome is detailed in the next article in this series under the heading "Diagnosis and Therapy.")

Wounds

In setting forth your findings as to contusions, lacerations and wounds, make a definite statement as to whether *there is or is not* tendon, vascular, visceral or neural involvement; if *possible* be definite as to *whether it was a pre-examination condition.*

If there is any such involvement, state exactly which nerve, tendon, viscous or vessel was affected, and the extent of the traumatic damage; e.g., "completely severed," "serosa slightly nicked," etc.

Details

Use terms such as "self-inflicted" with great care. Ordinarily this impression should be qualified with "presumably," or "by history of . . . . . ." If the the trauma is even possibly the result of a criminal act, let the *police* give the details to the press. That is not your responsibility, and you may be interfering with complete justice.

However, *every* detail of the resultant trauma belongs in your chart. A man's freedom, or even life may well depend on the findings you *record* at the time the patient is first seen.

Record TAT shots, and *record* emergency medication or other emergency treatment given for stabilizing the patient's vital signs. If a blood transfusion is given, *record* "typed and cross-matched." If parenteral fluids,

ABOUT THE AUTHOR

After graduation from college, the author studied to become a clinical technician, and later, a nurse. She was employed, for a time, as an office nurse and medical secretary to a private internist in Los Angeles. For the past several years she has been surgical secretary at the Highland-Alameda County Hospital, Oakland, California.

record what percent of what and in what base. Additional supportive therapy such as dextran? How much fluid? Over what period? *Record!*

Fractures

Here are questions relative to fractures. The answers to these should appear in patient's chart.

Give all orthopedic findings and x-ray diagnosis. (Wet or dry films read?)

- Type of fracture? (e.g., simple transverse, greenstick, oblique, etc.)
- Exact location of fracture, with name of bone, not region. (e.g., Intertrochanteric fracture, left *femur,* not left *hip.*)
- Was the fracture displaced? How?
- Was there crepitation? Swelling? Pain on motion? Ecchymosis? Marked warmth?
- Were there normal pulses and motor and sensory response distal to the fracture site?
- Compound wound? If so was there gross contamination?
- Did you attempt to have patient bear weight on an affected lower extremity, or was it contraindicated?
- Were there associated abrasions or superficial lacerations that might later cause trouble under a cast?
- Did you rule out by the extent of your x-rays any associated fractures? If not, be very certain that your chart states that patient was advised as to this possibility, and the reason for the limited films. You are responsible for a complete diagnosis, and a fracture of the humerus, for example, *might* be overlooked with a more severe fracture of the radius and ulna with displacement.
- Is there as associated hematoma? Evidence of disruption of associated tendons?

Reduction

If reduction per se is not indicated, make some such statement as, "Because of the location and type of the fracture, reduction was not thought necessary," (as in fractures of the clavicle, etc.) If the fracture was not displaced and only needed immobilization, be very sure that this is in the chart, supported by x-ray findings.

If a reduction is indicated, whether done in your office or in a hospital, this should be treated like any other operative report, and the following should be *recorded:*

1. Closed or open reduction? (Full technique in either case.)
2. Skin break involved? If so

describe asepsis techniques and state type of dressing applied.

3. Pad the member "adequately."

4. State extent of cast and position in which member was immobilized.

5. Check cast when set and record color, warmth and motion of fingers or toes in comparison with those of opposite member.

6. Instruct patient *of record* as to the signs and symptoms "should subsequent swelling render the cast too tight." This is particularly imperative where patient is not hospitalized. Also, *record* that you told him or his responsible relatives to report such symptoms "at once."

7. Were x-rays taken in plaster? If not, why not? What did they show? Wet or dry films read?

Amputations

If you amputate on a traumatic basis, be *extremely* careful that the record in your chart shows such an amputation to have been *inevitable* to any "expert" who might later testify. If you amputate on an arteriosclerotic, occlusive or diabetic basis, *describe* arterial changes at the level of amputation. The average patient does not understand the necessity for amputating above the knee for a little sore on his foot or ankle. AN ADEQUATE PERMISSIVE STATEMENT IS ESPECIALLY VALUABLE IN ALL SUCH CASES.

Crushed chest

In a thoracic trauma, with or without visceral involvement, initial findings to be recorded include:

- Date and time of accident and circumstances surrounding it.
- Date and time of initial examination.
- Complete details of previous emergency treatment, including by whom it was given.
- General appearance, state of consciousness, color, etc.
- Vital signs, including evidence and estimate of amount of blood lost.
- Adequate airway? Respiratory efforts? Paradoxical respiration? Emphysema? Evidence of torn trachea? Crepitus of skin or subcutaneous tissues?
- Possibility of cardiac tamponade or contusion? With EKG, if this is at all possible. Was EKG later repeated?
- Internal or external compounding of fractured ribs? Chest mobility? Possibility of associated fractures of spine ruled out?
- Hemoptysis? Presence of tension or non-tension pneumo-

thorax or hemothorax? Sucking wound?

• Concomitant non-thoracic trauma? (e.g., fracture of member, etc.)

• Detailed auscultatory findings? Percussion findings?

• X-ray reports. Were later x-rays taken to rule out late hemothorax? If x-rays are contraindicated, why?

• If aspiration is done, give exact point of aspiration, type of needle, technique and detailed findings, including amount and nature of material removed.

• If intercostal block is done, describe technique, type of anesthetic agent with attenuation, total amount and amount injected in each nerve (which side?). Give the number of the ribs involved; e.g., "Ribs 8-10, right."

• Was tracheostomy indicated? If so, write it up as you would any other surgical procedure.

• Therapeutic bronchoscopies indicated? If so, write up as you would any other surgical procedure.

• Intrathoracic tubes used? Where and how inserted? Size? Type used? Connection to?

• Traction used? Describe type and results. Sandbagging? In what position?

• *Estimate patient's condition before and after each examination or treatment.*

Face, head, spine

In recording injuries about the head, face, or cervical spine—especially since this type of injury may have a permanent residual—the suggestions made with regard to trauma in general are more than ever relevant. In addition:

1. Patient comatose? Stuporous? Confused? Uncooperative? Apparently reacted normally?

2. Paralysis or weakness of any member? Abnormal reflexes?

3. Quality of response to painful stimuli in each member?

4. There were (or were not) contusions, abrasions or lacerations about the head.

5. Palpation revealed (or did not reveal) evidence of cranial defect.

6. Facial or cranial ecchymosis or asymmetry?

7. Extraocular movements normal? If not, give specific deviation.

8. Pupils equal? Reacted sharply to light and accommodation?

9. Nose bleed or other fluid or exudate in nasal cavity.

10. Ear drum intact? Evidence of hemorrhage within

middle ear or in auditory canal?

11. Any gross defect of cranial nerves? How shown or ruled out?

12. Neck stiff? Tender? Move normally? Shoulder shrugging equal bilaterally?

13. Detailed extraoral and intraoral findings in maxillary, mandibular or zygomatic fractures.

14. Vision possibly compromised? (If so, see following section on injuries to the eyes.)

15. Complete x-ray report. If patient is not able to be x-rayed, so state, with reasons why this is contraindicated.

16. Lumbar puncture? Which interspace? Free flow of fluid? Character of fluid, i.e., Clear? Bloody? Xanthochromatic? Any change in condition of patient as a result of puncture?

Trauma involving eyes

Where an injury is such that it involves the vision, this should be definitely evaluated before starting any treatment. Light perception? Light projection? Moving objects? Finger counting?

All information given re lacerations and wounds applies to this type of injury, and reference is made thereto. In addition your record should contain an accurate and detailed description of each laceration or wound, including:

- Position, extent and depth in exact terms.
- Conjunctiva involved?
- Globe, and particularly the cornea involved? Sclera involved?
- Internal structures presenting in wound? (e.g., prolapsed iris.)
- Evidence of aqueous or vitreous loss?

Should there be other evidence of external violence or possible head injury which involves the orbit, be *most definite* in stating what findings were *due to the injury.*

Foreign body

Where patient presents with a foreign body, or history of possible foreign body, *describe:*

1. Type (metallic, carborundum particles, etc.).

2. Measurement, if possible.

3. Exact point and depth of penetration.

4. Associated trauma which *might* affect vision, and be sure to designate what *is* and what *is not* directly ascribable to the accident.

5. The ophthalmologist is *obliged* to have x-rays taken to rule out intraocular or orbital penetration, and if these are refused

by the patient, *record* that they were ordered, and reason given by patient for not having them taken.

In chemical or thermal burns involving the eyes, the following should be in your chart in addition to that given under "Burns."

- What chemical was involved? How did you determine this? What did you do to neutralize it, if anything? Gentle, copious, saline irrigation?
- Previous treatment on an emergency basis? Where and by whom? Exactly what was done?
- Detailed findings as to the extent of the initial damage, with possible delayed damage directly ascribable to the accident, and *guarded* prognosis as to possible final impairment of vision.

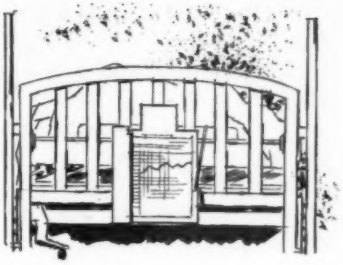
Burns

In your record on burns, and in addition to the suggestions initially given as to reporting trauma, record:

1. Type of burn (dry thermal, electrical, chemical, steam, water, grease, etc.)

2. Apparent degree of burn, and if of more than one degree, indicate approximate percentage of each type. Charring or necrosis?

3. Draw anterior and posterior mannikins indicating burned areas by shading, and give percentage of body area involved.



4. Gross contamination through broken skin? If so, of what does this consist?

5. Complete details of any previous treatment on an emergency basis, including name of person giving treatment, and where given.

6. Vital signs at initial examination. Is patient fully conscious and capable of normal response and definitive determination as to deep muscular, vascular or neural involvement?

7. Blast injury? If so, give detailed findings suggesting this complication.

8. Associated crush injury (as in a mangle burn)?

9. Eyes involved? If so, see section on eye injuries.

10. Any portion of the airway involved? Facial burn which *might* cause subsequent intraoral edema?

11. History of transfusion reaction?

12. History of antibiotic sensitivity?

13. History of tetanus protection and/or sensitivity?

14. Weight of patient at time of initial examination, with *immediate* intake and output record.

Ingestion of chemicals

More time is spent in medical school on the subject of toxicology, and more text books have been written in proportion to the probable number of cases, than in almost any other phase of medical practice. Therefore, for our purpose it is sufficient to point out that your initial history and examination should contain as accurate a record as possible as to the time and the circumstances surrounding the ingestion, as well as the amount and type of the chemical (including brand name, if a household or garden product).

State exactly from whom the information was obtained. State whether previous emergency treatment has been given, where and by whom, and exactly what was done.

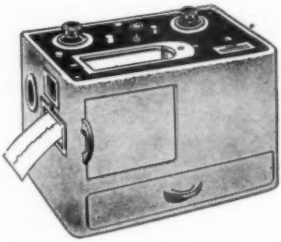
All bottles or pill boxes at hand are pertinent and should be noted, together with prescription numbers, etc.

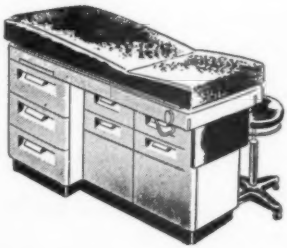
Most urban centers have toxicology information (poison control) centers from which specific instructions and antidotes can be obtained — often in advance of need. Detailed signs and symptoms and exact time of initial examination should be recorded as soon as practicable in the interest of accuracy; treatment and response should be recorded in greater detail than commonly necessary. If there is a moot question about a given treatment, *record your reasons* for doing it or leaving it undone; e.g., gastric lavage.

Note: Other articles in this series will cover diagnosis and therapy, examinations and endoscopies, ob-gyn, and general notes on surgery.

Equipping the Internist's Office

What equipment is needed by the internist who is completing his residency and preparing to open an office? RESIDENT PHYSICIAN *recently put this question before a number of practicing internists.*





Though such things as decor, style and layout of an office are best left to the individual taste of the physician (or his wife), the resident would be wise to visit an office equipment firm since many offer a free consulting and advisory service. Some will even furnish your entire office on the cuff — and at reasonable bank rates.

There are two ways in which a resident can help himself avoid mistakes: 1) consult an office equipment company. Many maintain an advisory staff experienced in equipping doctors' offices, and 2) make a tentative list of equipment items you think you'll need immediately—together with cost estimates.

Since the practice of internal medicine deals primarily with adult patients, the depredations of galloping juveniles need not be considered by the internist when choosing his waiting room fix-

tures, furniture, and floor covering. (Now aren't you glad you're not a pediatrician!)

In other words your waiting room need not be "kid-proofed" with everything done in plastic, steel and concrete.

Instead, you can make your waiting room comfortable, soothing, with a bit of luxury—but not gaudy.

Keep in mind that wall color, furniture, floor, even the pictures on the wall should be chosen with the idea of a calm and relaxed atmosphere.

Some internists indicated they favored a homey atmosphere, others felt a functional, business-like, professional-looking set-up was best.

Carpet

All agreed that carpeting (not linoleum, tiles, etc.) was necessary . . . if not throughout the office, at least in the waiting room. Carpeting certainly adds dignity to any room. This, plus its sound absorbing characteristic, makes a carpet well worth its greater expense as compared to other types of floor covering.

Carpet cost, of course, depends pretty much on the size of the room and the quality of the carpet. A neutral shade (easier to keep clean) of good quality wool or blended fiber would run from $10 to $15 a square yard or about $150 for a 9x12 room covered wall to wall. Since the average waiting room of the internists survey is larger than this, the average carpet cost, plus under-pad, ran to $220 among internists polled.

In commenting on chairs for the waiting room, few of the internists questioned had upholstered furniture. Such furniture, in their opinion, gathered dust, was difficult to clean, was initially expensive, and not very durable. Plastic-covered wood led the field with leather-covered a close second. There is little to choose between them except that leather costs more, while a wider variety of colors appears to be available in the plastic covering.

Durability and ease of cleaning were the reasons given for the selection of these materials over the overstuffed or upholstered furniture. The cost of such chairs averaged about $35 each, with 5 chairs and a sofa being about the average number of pieces.

Two or three small tables are important since they serve the triple function of providing a base for table lamps, a resting place for magazines, and a location for ash trays. Incidentally, never mind about the cute little

Office equipment you'll need in private practice

This is the fourth in a series of exclusive articles on equipping your office for the private practice of your specialty. It is based solely on a survey conducted by your journal among practicing specialists.

Prices quoted are approximate and represent new equipment unless stated to the contrary. When a wide range of price and quality is available for a specific item, this fact is indicated.

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ash trays suitable for a woman's bridge party. Get the man-sized jobs that'll keep cigarettes from ruining your brand new tables and carpet. Tables need not be expensive. Well-designed wooden tables can be purchased from $25-$45 each.

Table lamps add warmth to the room and can be purchased for under $40 each. Most internists expressed a preference for the table lamp over wall fixtures or floor lamps. More intimate, and uncluttered floor space were two reasons.

The consultation room is, for the internist as for most specialists, perhaps the most important room in his office. Here the history is taken. Here the doctor and the patient first meet. And the first interview is often lengthy. So this room should be extra nice. Again the consensus of opinion was that a carpet is an important addition, but not an absolute necessity.

A desk, of course, is needed. The price of the desk will depend upon the style, size, and the material. In general the average price paid for a desk, according to our survey, was $150. But, this figure varied from $50 all the way to $500. One point: the desk should be large enough, contain enough drawer space for some of the hundreds of items the internist will want at his fingertips.

Even more important perhaps, than a desk, are the chairs for patients and for the physician. Your chair should be picked primarily for your comfort. It will be your best friend and will be near you for many years. Try before you buy. Good chairs can

be expensive. According to internists, the chair they thought best, in some cases, cost as much as $250.

The patient's chair should also be chosen for comfort, but for the comfort of the *average* individual. Our respondents indicated an average cost of $75.

One other chair may be necessary for the friend or relative of the patient. This can be armless, but probably should be covered with the same material as the patient's chair.

In choosing a desk lamp, care should be given that the light is reflected downwards, not into the patient's eyes. A good desk lamp can cost anywhere from $25 to $50.

A bookcase may be a good idea in the consultation room. A bookcase is colorful, adds to the patient's confidence in the doctor. Bookcases can be purchased as a unit. The price quoted may be $75 or $100. Bookcases can also be custom built to fit odd-sized wall areas.

A cabinet may be useful in your consultation room if there is space enough. Prices run in the neighborhood of $50 to $75.

Most internists queried bought examining room equipment in sets of three or four pieces; that is, an examining table, a treatment cabinet, a treatment stand, a stool, and a sanitary can. Prices vary according to the type of equipment purchased, the materials, and the manufacturer. In general, a set bought new can cost as little as $500, or as much as $1,000 or more.

A good examining table can be purchased new for from $250 to $800. The difference in price depends upon the type of materials, decorations, and extra features provided. Some internists, at the beginning, purchase an examining table second hand. A second hand examining table in good condition usually can be purchased for under $100 and an adequate refinishing can be done for $25 to $30.

Cabinet

A treatment cabinet and a treatment stand may not be necessary right away. Perhaps money could be saved by using wall shelves or built in cabinets to serve the same purpose. In either case, most internists reported they purchased the treatment stand for under $75 and the treatment cabinet for a similar price.

Examining lamps vary from as little as $15 to as much as $260 and more; the difference depending upon the source of light, type of illumination, and size.

Refrigerator

If your future office is to be separated from your home, you can plan on having a refrigerator. The type is not as important as the size. In general the price of a new refrigerator, will run from $100 to $250 depending on the style and volume of storage provided. A refrigerator should be small enough so it won't dominate a room, but at the same time it should be of sufficient capacity to store your requirements of antibiotics and medicinals.

Laboratory equipment

For the beginning internist, in order to cut down expense, it would probably be wise to gradually accumulate laboratory equipment instead of trying to get everything immediately. You should have equipment sufficient for doing complete blood count, urinalysis, and sedimentation rate.

A used microscope can be purchased from $175 to $450. New microscopes run from $325 to $750. Other equipment needed for these tests can be purchased for $65 or $75.

A centrifuge will also be necessary. Be sure it has sufficient speed to do an accurate hematocrit since hematocrits and urines will constitute your need for a centrifuge. Cost may be about $50.

Photoelectric colorimeters and other equipment to do blood sugars and other detailed blood studies are very useful and can greatly increase income for the beginning practice. Thirty percent of the survey group stated that they had such equipment when opening a practice.

Electrocardiograph

The electrocardiograph was "the most important piece of equipment" needed by the young internist according to 90% of those polled. Most felt it should be purchased new. "This will be your best friend in practice," was a typical comment on the EKG.

Prices of an electrocardiograph vary according to design and type. About $600 is an average price.

BMR

On the question of basal metabolism equipment, the internists polled were split; about half felt BMR equipment was necessary to a beginning internist, the other 50% stated that they thought it could be postponed for at least a year or two. In general, if the additional expense is not too great a burden, the equipment should be purchased at the begin-

ning, since it is an important aid in diagnosis. Prices range from $400 to $700.

A diathermy machine was considered an immediate necessity by 20% of the internists surveyed—however, here again expense was a factor.

Special instruments

A sterilizer or autoclave is a must, according to 95% of the survey group. The majority felt it should be bought new since the price of a sterilizer (cast-bronze boiler, chrome exterior: $60 to $100 depending on the size) is relatively small compared to the possibility of faulty electrical circuits in a used machine. Many recommended autoclaves; prices from $220 to $500, new.

A scale should be purchased; price should be about $60.

Other special instruments needed in the beginning practice of internal medicine are ophthalmoscope, a proctoscope, and a sigmoidoscope. Most internist residents have already purchased an ophthalmoscope at some time during their career. However, if a new one is desired, it can be purchased for about $50. About 70% of the group thought a proctoscope and a sigmoidoscope necessary at the beginning.

According to our survey, 50% stated that the initial stock of medicinals on hand for office use (not dispensing) cost less than $50. About 30% stated that their outlay was $100, while only 20% stated that they spent more than this sum. A good rule here is to start slowly and build your drug supply selectively. However, deterioration is not a problem since most dated items are returnable.

We asked each member of the survey group to give an approximate figure for the cost of outfitting his original office. The figure was to be complete, including any items such as typewriters, nurse's desk, nurse's chair, filing cabinet, etc., some of which you may be able to do without.

Some 20% of our group outfitted their offices for under $2000. More than half spent $3000 to $3500 on their initial office equipment. Twenty percent stated that their offices cost between $3500 and $4000, and 5% reported costs of more than $4000. Remember, prices have increased since internists surveyed entered practice. Therefore, a rough estimate would indicate that an office for the practice of internal medicine can be equipped for just under $4000.

Key Words for the Clinic

In many areas of the U. S., foreign-born comprise a large part of the total population. Hospital physicians when examining and treating foreign-born patients, many of whom speak little or no English, often encounter serious difficulty in communicating even the most routine request or direction. The result is not only frustrating for doctor and patient, but a misunderstanding can endanger the proper care of the patient. To ease the patient's anxiety and assist the physician in conducting an accurate examination and history-taking, RESIDENT PHYSICIAN has prepared this guide to commonly-used medical directions, questions and answers, with translations into various foreign languages.

Using the language guide

Keep this language guide open in front of you while attending your patient. If a word doesn't seem to be understood, repeat it a few times slowly; vary the pronunciation slightly until the patient indicates his comprehension. The fact that you are trying to speak to him in his native language will cause your patient to be more relaxed and responsive. Grateful for your effort, he will be anxious to do everything he can to comprehend and convey accurate, precise information.

FOR EXAMINATION OF

Spanish-speaking Patients

Pronunciation

1. The sound of vowels is constant:
   a—*ah* e—*ay* i—*ee* o—*oh* u—*oo*
   Thus, pies is pronounced *pee-ayss*
   cuando is pronounced *coo-ahndoh*
   oido is pronounced *oh-wee-doh*
2. The double L or "ll" has the same sound as a coupled *ly* in English; thus cuello (neck) is pronounced *koo-el-yo;* alli (there) is pronounced *ahl-yee.*
3. H is always silent (as in the English word "hour").
4. The J is pronounced like the H in English. (San Jose is pronounced *Sahn Ho-say;* La Jolla is *Lah Hole-yah).*
5. The letter Q is always followed by the letter U which is not pronounced. Thus—que (what or which) is pronounced *kay;* aqui (here) is pronounced *ah-kee.*
6. The N when written *ñ* is pronounced *ny* coupled with the following vowel. Thus, *años* is *ahn-yos.*

Courtesy

The courtesy titles *Señor* (Sir), *Señora* (Madam) and *Señorita* (Miss) are used freely. For the sake of brevity in this presentation, they are given only with the first few examples below.

Good morning, Sir	Buenos días, señor *boo'aynohs dee'ahs sayneohr'*
Good afternon, Madam	Buenas tardes, señora
Good evening, Madam	*boo'aynahs tahr'des sayneoh'rah*
Good night, Miss	Buenas noches, señorita *boo'aynahs noh'chays sayneohree'tah*
Please	Haga el favor de . . . *ah'gah ell fahvohr' day*

How are you?	¿Cómo está? *koh'moh esstah'*
My name is Doctor ——.	*Me llamo Doctor* ——. *meh l'yah-moh dohk-tore* ——.

Anatomical terms

head	la cabeza	neck	el cuello
eyes	los ojos	chest	el pecho
ears	los oidos	heart	el corazon
nose	la nariz	lungs	los pulmones
mouth	la boca	shoulders	los hombros
teeth	los dientes	back	la espalda
tongue	la lengua	arms	los brazos
throat	la garganta	hands	las manos
fingers	los dedos de la mano	bladder	la vejiga
toes	los dedos del pie	rectum	el recto
legs	las piernas	buttock	la nalga
feet	los pies	ribs	las costillas
stomach	el estomago	knees	las rodillas
		elbow	el codo

General questions

do you feel sick	se siente mal
do you have pain	tiene usted dolor
much pain	mucho dolor
mild pain	poco dolor
where	donde
here	aqui
there	alli *(ahl-yee)*
when	cuando
have you had any bleeding from the mouth, rectum, bladder, vagina	ha tenido alguna hemorragia por la boca, recto, vejiga, vagina
how many years—months	cuantos años—meses
how many days	cuantos dias
how many weeks	cuantas semanas
how many hours	cuantas horas

how many times	cuantas veces
where were you born	en donde nacio
how old are you	cuantos años tiene
are you allergic to any food	es usted alergica a algunos alimentos
are you allergic to any medicine	es usted alergica a alguna medicina

Directions to patients

do as I do	haga asi
relax	sueltese
relax more	sueltese mas
open your mouth	abra la boca
open your eyes	abra los ojos
breathe deeply	respire profundamente
breathe through your mouth	respire por la boca
hold your breath	no respire
push	puje
cough	tosa

Systemic inquiry

EARS

he is deaf	esta sordo
noise in the ears	ruido en los oidos

HEAD

trauma	golpe a la cabeza
unconscious	insensible
did you faint	se desmayo
are you dizzy	tiene vertigo
headache	dolor de cabeza

EYES

sight	vista
clear vision	vista clara
near	cerca
far	lejos

NOSE	
coryza	catarro
did you have a nosebleed	sangro por la nariz
THROAT	
do you have frequent sore-throat	le quema la garganta frecuentemente

Diseases—enfermedades

measles	sarampion
scarlet fever	escarlatina
chicken pox	viruela buena
small pox	viruela mala
pneumonia	pulmonia
typhoid fever	fiebre tifoidea
enteritis	fiebre intestinal
U.R.I.	resfrio

Cardio-respiratory

do you tire easily	se cansa pronto
are you short of breath	respira con dificultad
does your heart beat fast	le late aprisa el corazon
do your feet swell	se le hinchan los pies
do you have pain in the chest	tiene dolor en el pecho
sharp pain	dolor agudo
dull pain	dolor sordo
when you breathe	cuando resuella
do you cough	tose
do you spit	escupę
sputum	saliva
bloody sputum	saliva con sangre
have you lost weight	se ha adelgazado
does someone in your family have a cough	tiene tos uno de sus parientes

Gastro-intestinal

do you have a good appetite	tiene buen apetito

do you have a poor appetite	tiene mal apetito
are you nauseated	tiene basca
were you nauseated	tenia basca
do you vomit	vomita
do you have diarrhea	tiene deposiciones (diarrea)
are you constipated	tiene estrenimiento
did you have a B.M. today	obro hoy
feces	excremento (caca)
black	negro
white	blanco
yellow	amarillo
brown	cafe (pardo)
bloody	con sangre
do you have cramps	tiene retortijones
after meals	despues de comer
before meals	antes de comer
did you take a laxative	tomo laxante
did you take castor-oil	tomo aceite de recino

Genito-urinary

urine	orina
do you get up at night to urinate	se levanta a orinar
does it burn	le quema la orina
chills	escalofrios
fever	calentura

Obstetrics and gynecology

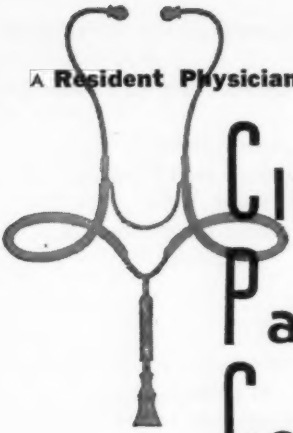
at what age did you begin to menstruate	a que edad comenzo a menstruar
how many days do you flow	cuantos dias sangra
1 to 10	uno, dos, tres, cuatro, cinco, seis, siete, ocho, nueve, diez
do you have a discharge	tiene desecho
when was your last menstrual period	cuando fue su ultimo periodo
are you pregnant	esta en cinta

do you have pains with your period	tiene dolor con sus periodos
how many times have you been pregnant	cuantas veces ha estado en cinta
how many children have you had	cuantos niños ha tenido
how much did the largest weigh at birth	cuanto peso el mas grande al nacer
what was the duration of labor	cuanto tiempo duro el nacimiento

Pediatrics

did you have any trouble with the child's delivery	tuvo usted alguna dificultad en el parto
how are the child's stools	como son las evacuaciones del niño
constipated	esta estrenido
diarrhea	tiene diarrea
how many in one day	cuantas evacuaciones tiene al dia
does the child eat well	come bien el niño
any vomiting	vomito alguna vez
does the face turn blue	se le pone azul la cara
does the child seem tired	aparece cansado el niño
does it hurt	le duele
it won't hurt	no le dolera
it will be finished in a minute	se terminara en un minuto
do you want a piece of candy	quieres un pedazo de dulce
did you take the temperature	le tomo la temperatura
what was the temperature	que temperatura tenia
what a big, handsome boy	que niño tan hermoso y guapo
what a beautiful little girl	que niñita tan bonita
baby (male, female)	niñito, niñita
child (male, female)	niño, niña
good	bueno

A **Resident Physician** MONTHLY FEATURE



Clinical Pathological Conference

UNIVERSITY OF OKLAHOMA MEDICAL CENTER

PATIENT: J. H., 76-year white female.

CHIEF COMPLAINTS: Swelling of abdomen—1 week; nausea on eating—1 month; weakness and loss of appetite — 4 months; weight loss 30-40 pounds in 1 year.

PRESENT ILLNESS: This 76-year white female felt well until 4-5 months before admission when she noted weakness and progressive weight loss. She was told by relatives that "she looked anemic." She consulted a physician who gave her "some large capsules and a tonic." After beginning to take these she noted loss of appetite and black stools. Her strength returned somewhat.

One month prior to admission, she discontinued the medications because she felt they caused her to be nauseated upon ingestion of food. The nausea persisted, as did the black stools. For the past month she has been able to eat only small amounts at any one time due to the nausea.

During the week prior to admission her abdomen increased in size "as it did when she was

pregnant" and she began to vomit after ingestion of food or water.

PAST HISTORY: Four years prior to admission she was told that she had high blood pressure. Typhoid at age 12; mumps at age 45; appendectomy at age 61; fracture of left arm at age 71.

FAMILY HISTORY: Two brothers died of "strokes" and one of dropsy (ages unstated).

PHYSICAL EXAMINATION: T. 98.6°, P. 82, R. 24, BP 122/56. She was chronically ill with a distended abdomen and evidence of recent weight loss. Her skin was pale. Bilateral cataracts were present. The abdomen was markedly distended and revealed a fluid wave and shifting dullness. There was slight pitting edema of the ankles. The remainder of the physical examination was not unusual.

LABORATORY DATA: Urinalyses had specific gravities ranging from 1.014 to 1.023, protein from negative to a trace, and sugar from negative to a trace. A VDRL serologic test for syphilis was negative. Total serum protein was 6 gm.% with A/G ratio of 3.3/2.7 Total serum bilirubin was 0.46 mg.%. Fasting blood sugar was 130 mg.% on admission and 167 mg.% the next day. Hematocrit was 33%, Hb. 9 gm.% and WBC 10, 150/cu.mm. with 92% neutrophils. Cephalin flocculation was 2+ at 48 hours. Thymol turbidity was 5 units.

X-RAYS: *Chest*—Heart size within normal limits, but full hilar shadows and prominent but hazy pulmonary vessels suggest congestive failure.

Abdomen — Multiple radiopaque gallstones. Moderate accumulation of gas in small and large bowel suggesting mild distention due to generalized illness, but not suggesting obstruction.

Cholecystogram—No concentration of contrast media; gallstones.

Upper Gastrointestinal Examination—Distal stomach not well visualized due to patient's inability to cooperate; probably deformed.

Colon Examination—No abnormality shown.

CLINICAL COURSE: Six liters of turbid yellow fluid were removed from the peritoneal cavity. Following this the liver was palpable 10 cm. below the costal margin and a left upper quadrant mass thought to be spleen was palpable 10 cm. below the costal margin. She was given parenteral fluids and mercuhydrin. Nausea and vomiting continued. Twelve days after admission she became uncooperative and de-

veloped urinary incontinence. The next day she was found unresponsive and cyanotic with a weak pulse. She expired a few minutes later.

Discussion

JOHN A. SCHILLING, M.D., *Professor and head of the Department of Surgery, University of Oklahoma School of Medicine:* To begin with the facts that are at hand, we have a 76-year-old white female. This gives us some picture of the protoplasm, the age, etc., of the patient. The chief complaints bring three or four things to mind. The first is that this patient had been in fairly good health until about a year before, and as is so often the case, symptoms began to occur which perhaps weren't too alarming. But these became more acute, and shortly before admission a still more acute episode occurred that brought the patient into the hospital. So our task is to assemble the data into a reasonable symptom disease sequence.

The age of 76 would suggest numerous diseases, as we all know. Weakness and progressive weight loss accompany many things. Alone this doesn't help us very much. She was told she looked anemic and went to a physician who gave her some capsules and tonic. I hope you all realize that to give a person some iron in one form or another without a complete diagnostic study at this time, was wrong. We must assume that he did more than this. I point this out so that you may avoid treating a symptom before looking for the etiology.

Following this medication, she noted loss of appetite. If, as I presume, she was given iron pills, this complaint is a rather common accompaniment of iron in its various oral forms. Therefore we could attribute these complaints of loss of appetite and nausea to the medication. The black stools that followed could also have been due to iron, but obviously may have contained occult blood. Her statement of returning of strength may be related to the positive marrow effect of iron in a hypochromic microcytic anemia that might have been due to blood loss. Matters must have been rather difficult, however, because she discontinued the medication with a persistence of the black stools. I think this indicates that they were tarry stools, containing occult blood.

A month before admission she had been able to eat only small amounts of food and with nau-

sea. Immediately prior to admission her abdomen increased in size rather suddenly, and she began to vomit. This type of sudden increase in size of the abdomen is almost always due to fluid retention. Gradual changes may be due to weight, but the acute changes, either positively or negatively, are most frequently due to either water loss or water retention. Apparently she developed ascites on a rather acute basis, just prior to admission. At this time vomiting, often an accompaniment of ascites, was a symptom.

In summary of the present illness, we have a woman who is obviously chronically ill, with weight loss, a progressive history of loss of appetite, dark stools and sudden enlargement of her abdomen.

Anemia

The past history may help us, in that she was told that she had high blood pressure. What type and degree is hard to say, particularly in light of the physical examination recorded below. But, coupled with the family history, we might assume that there was a reasonable possibility of the presence of a greater than average degree of arteriosclerosis and arteriosclerotic heart disease with possibly high blood pressure. As such, the family history is significant.

The physical examination, in terms of vital signs, does not help us very much except it may rule out the possibility of hypertension and potentially arteriosclerotic disease of her aorta with aneurysm. The paleness of her skin coincides with the anemia which is reported below and the marked distention and fluid wave with ascites.

There was slight pitting edema of the ankles. This, I think, is a rather important statement in the protocol because if her ascites had been due to heart failure, in a relatively chronic form, I would have expected her to have more than a slight pitting edema of her ankles. A normal blood pressure in a woman who had apparently been well at the age of 76 just does not quite fit the picture of cardiac decompensation, although it is a possibility.

The urinalyses help in that her concentrating function is good enough at this age for us to assume that she has fairly normal renal function. The total serum proteins and the A/G ratio indicate in a plus/minus way the fact that she has not had chronic hepatic disease. Other liver chemistries, a normal bilirubin and a

relatively normal A/G. ratio, with reduced total proteins, that might reflect her weight loss, make it possible to assume that up until this point, she has reasonably normal liver function. The blood sugar is a little hard to interpret.

The hematocrit is consistent with a moderate chronic blood loss. Again we don't have complete hematologic data and no blood smear, but I would say that the lowered hematocrit and hemoglobin, coupled with blood loss and hypoproteinemia, would be about what one would expect in this disease process. The cephalin flocculation was 2+ in 48 hours, again plus/minus, but I would interpret this in the light of the patient's age and chronic illness, as being within normal limits, as was her thymol turbidity.

There is no mention of occult blood in the stools and I hope this determination was made, because it would have considerable bearing on this patient's diagnosis.

Now when we come to the x-rays: I think these may be fairly significant in light of what follows in the protocol and I think in typical fashion we might look at the x-rays at this point, and then carry on from there.

Films

G. R. RIDINGS, M.D., *Professor and head of the Department of Radiology, University of Oklahoma School of Medicine:* This film is so dark that it does not project well. There is some mention made in the previous report of the increased hilar shadows. These appear to be vascular. The lungs are otherwise not remarkable. The heart is moderately enlarged, but not grossly so. In the abdomen, in particular, we see here multiple loops of small bowel which are moderately, but not grossly distended with gas. They are scattered throughout the colon including its normal portion. This would suggest that there is some air down in the ileum; no mechanical obstruction. The overall haziness is largely due to technique and also does suggest the presence of some fluid within the abdomen. This is one film of an upper gastrointestinal examination.

The person who did the fluoroscopy suggested that there may have been a defect either in the fundus or the cardia which must be the particular point here in question. On the films, there is nothing very definite. This is the only film that shows an indentation in this region. I would leave any definite statement here up to

the fluoroscopist, because we have no good evidence on films of anything significant.

A barium enema was done, the fluoroscopist felt that there were indentations of the colon in this region, the left upper quadrant, an extrinsic mass, and there was no intrinsic abnormality. The films show no evidence of intrinsic abnormality, and certainly the transverse portion of the colon is curved downward, as if there were a mass in that region.

Fluid

DR. SCHILLING: In addition, the calcified gallstones and gallbladder series should be mentioned. Particularly, in an older person, this is quite pertinent if there is an acute abdomen. The ascitic fluid might suggest a bile peritonitis, and yet the physical findings of this woman didn't suggest an acute abdomen. I only mention it because of its potential significance in other patients, as the mortality rate is high unless it is recognized early.

Six liters of turbid yellow fluid were removed from her abdomen. I assume that no cell block was made of this fluid. Dr. Jaques, was a cell block made of the ascitic fluid that was removed?—If one was not made it would have been an error, because in this instance it might have been of considerable help.

Following the tapping of the abdomen, as is so often the case, things are palpable that may not have been palpable before. Certainly a liver palpable 10 cm. below the costal margin represents considerable enlargement and the spleen itself was thought to be palpable 10 cm. below the costal margin. If we assume that you have liver and splenic enlargement, this fits rather nicely into at least one possible diagnostic sequence. However, if this left upper quadrant mass was not spleen or liver, then we are at diagnostic odds, as it were.

She was given fluids and mercuhydrin. The nausea and vomiting continued, which could be interpreted now as an obstructive process, either around the pylorus or the ligament of Treitz, or a paralytic ileus. As she was relatively adynamic without a true mechanical obstruction, I would be inclined to favor the latter (paralytic ileus) in this particular case, being guided by the distribution of gas in the small bowel and colon as we look at the x-rays.

Rather suddenly, 12 days after admission, within a 24 hour period, she became comatose, cyanotic, and expired rather sudden-

ly. In summary then, we have a 76-year-old woman with at least a year's history of weight loss, and what we will assume to be tarry stools. May I ask this question: Was an occult blood test done on her stools?

WILLIAM E. JAQUES, M.D., *Professor and Chairman, Department of Pathology, University of Oklahoma Medical School:* No!

DR. SCHILLING: If it is not recorded somewhere in the record, again this is in error. This is one of the things that can be tested so simply, usually on the first examination of the patient, with the stool specimen on your glove, or a piece of paper, and it will give you important gross information immediately. Let's assume that it's positive. She developed ascites. In a woman 76 years old, with a questionable filling defect in the cardia, with probable blood in her stools, weight loss, and enlargement of the liver, I would suggest first—a carcinoma of the cardia of the stomach with metastases to the liver.

Her bleeding was on a gastric basis. Her terminal acute episodes were more or less related to an acute obstructive process within the liver, and the portal system, with extensive metastases. It is possible that her ascites could be of cardiac origin, but it doesn't appear that way. If she had an extrahepatic block in her portal system, her ascites would not be nearly as great. In other words, the intra-hepatic block was either in the liver or just above the liver, and I don't think she died of cardiac failure, per se.

Other possibilities must be considered, particularly because of x-rays that indicate a space displacing mass in the LUQ. First, it could be spleen enlarged by an intrahepatic venous obstruction. There are other things it might be. It could be a large cyst, cystadenoma, or carcinoma of the tail of the pancreas in this area. It could be a renal or adrenal neoplasm. And you have your retroperitoneal tumors, which in this woman at this age, developing rather acutely, could be one of the lymphomas.

We can think of Hodgkin's and reticulum cell sarcoma as possibilities. But you would expect to have found other evidence, and Dr. Ridings mentioned hilar shadows which he interpreted only as vascular.

Again, a 76-year-old woman, or any individual, can develop an abdominal aneurysm. Sometimes a mass is palpable in the abdomen or LUQ. At least with her cardiovascular family history it is

a possibility. Yet an aneurysm that develops in this nature usually is accompanied by a great deal of pain. If she died from rupture of an aneurysm it at least should have been with rather severe preterminal pain which characterizes a dissecting aneurysm. As we go back, I assume that the peripheral pulsations were within normal limits.

Difficult

For the sake of completeness, I do not think that this is an aneurysm. But remember that aneurysms can bleed. Sometimes before they rupture, they will penetrate into the intestinal tract and be quite confusing and the surgeon will explore these masses. You can oftentimes imagine the outcome of impending rupturing aneurysms when they are encountered. Yet today, occasionally and dramatically, they can be resected. So it isn't a hopeless situation, but often a very difficult one.

So, my final diagnosis, in a woman of this age, with a questionable gastric filling defect, is carcinoma of the region of the esophagus and the blind area of the stomach, metastases to the liver, acute portal obstruction, ascites, and fluid retention. Probably on the basis of all this, her terminal episode may have been one of acute cardiac failure and death.

DR. JAQUES: As far as the fluid in the peritoneal cavity is concerned, we withheld some information which is called gamesmanship in regard to CPCmanship. The ascitic fluid did have a sp. gr. of 1.016 and revealed numerous anaplastic tumor cells, many of which had a signet ring configuration. If we had put this in the protocol, I'm afraid it would no longer have been a diagnostic problem.

At autopsy, the peritoneal cavity contained approximately a liter of turbid yellow fluid. The parietal and visceral peritoneum were diffusely studded with grayish white umbilicated tumor transplants. When stomach was examined it was noted to be firm, having a leather bottle configuration, especially in the proximal portion around the cardia, the fundus, and extending for approximately 5 cm. proximally into the distal esophagus. The stomach along the greater curvature was also adherent to the spleen and to a lesser degree to the distal portion of the transverse colon.

When the stomach was opened, the rugae were extremely prominent and along the lesser curva-

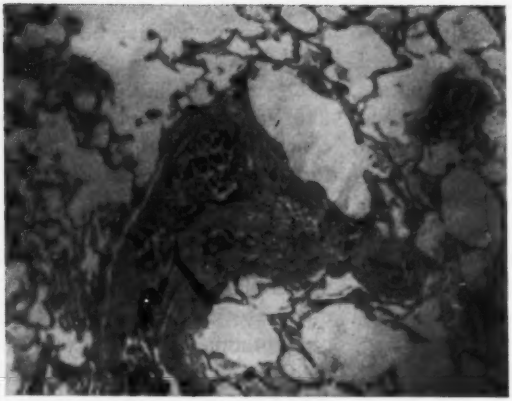


FIGURE 1

ture there was a 1.8 cm. area of ulceration. However, the proximal portion, as mentioned previously, was diffusely infiltrated by firm tissue.

Upon microscopic examination, this was shown to represent a carcinoma of the infiltrating type, although initially one might assume that this was an inflammatory condition — there were numerous anaplastic cells, but a goodly number of signet ring cells were present (Fig. 1).

The tumor transplants in the peritoneal cavity revealed a similar picture. There was also rather marked lymphatic and hematogenous dissemination of the tumor.

The liver was partially replaced by tumor, roughly 20-30% of the liver parenchyma was replaced by tumor. The liver also showed a rather profound fatty change and there was a slight proliferation of portal connective tissue consistent with early nutritional or Laennec's cirrhosis.

Tumor embolus

When the heart was examined it weighed 360 gm., and except for the mitral and tricuspid valves was not remarkable. Upon microscopic examination, there was slight vascularization of the valves which are considered by many to represent bona fide evidence of an old rheumatic carditis, inactive.

The lungs were heavy and

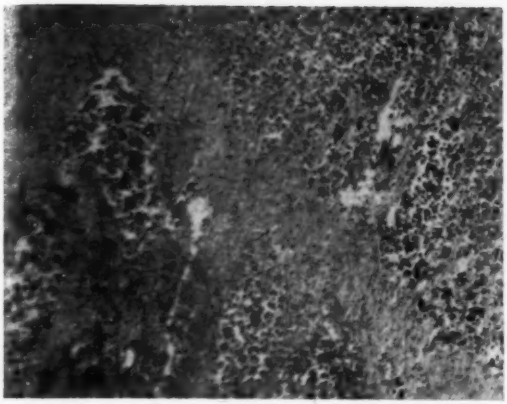


FIGURE 2

upon opening the pulmonary vasculature of the right lung there was noted to be what was interpreted grossly as a large pulmonary embolus. There were also three small infarcts of the hemorrhagic variety in the right lower lobe. The lungs otherwise showed a good deal of compression atelectasis because of fluid, especially in the left chest, and a tremendous number of obliterative pleural adhesions.

When the lung was examined microscopically this so-called pulmonary embolus turned out to be a large tumor embolus, apparently composed of viable neoplastic cells (Fig. 2).

Upon examining other sections of the lung, there was tremendous endolymphatic and endophlebitic dissemination of this tumor. It was interesting, in retrospect, on going back and looking at the protocol, that there was no evidence of any right ventricular hypertrophy, because sometimes these gastric carcinomas, especially the gastric carcinomata occulta may present signs of cor pulmonale as the presenting symptom. Yet this did have a great deal of vascular involvement with a reaction on the part of the pulmonary vasculature by intimal thickening and almost complete obliteration of the lumen in many instances.

The pancreas was also involved in this neoplastic process, apparently by direct extension,

and this was particularly noticeable along the superior aspect and along the splenic artery. Interestingly enough, there was also extension down the gastrolienal ligament into the spleen. The spleen was not enlarged to any appreciable degree. It weighed 190 gm. but had a large amount of tumor tissue in the splenic parenchyma. This was felt to result mainly from direct extension rather than being of the hematogenous route.

The only other incidental findings were the fact that the adrenal showed the inevitable lipid depletion we see in this day and age and the kidneys revealed some evidence of old chronic pyelonephritis and a slight degree of arteriolarnephrosclerosis. An examination of the head was not allowed.

In summation, I think Doctor Schilling hit the nail right on the head—it was a case of adenocarcinoma of the scirrhous or infiltrative type, apparently arising in the cardia or fundic region, extending into the distal esophagus with peritoneal seeding, extension to the pancreas, and spleen, and with hematogenous dissemination to the liver and lungs, with resultant marked involvement of lymphatic and vasculature of the lungs.

Fluid cell block

DR. SCHILLING: Just a word about ascites. Widespread cancer metastases are of interest in the etiology of ascitic fluid, perhaps, by blocking of lymphatics. This is a different mechanism than the intra-hepatic obstructive type or the cardiac type of ascites. Hypoproteinemia or sodium retention may be contributing factors. Ovarian cancer — often a silent lesion—may be heralded by the ascitic abdomen as the presenting complaint. So it is well to be suspicious of ascitic fluid and to always do a cell block with both pleural and ascitic fluid.

One can continue to speculate and be curious about the nature of the ascites. One of the other unusual mechanisms of ascites, which is poorly understood, is an ovarian fibroma. I had a recent letter from Doctor J. V. Meigs, who would like to study the steroid content of this intriguing lesion.

I would like to ask Doctor Jaques one last question concerning the tumor embolus, which I think is a rather unique terminal episode. Where did it come from, or was it an implant that grew and then suddenly obstructed? I assume a major portion of the pulmonary artery was occluded with a vasoconstriction of the re-

maining pulmonary arterial system. This resembles an acute embolus of vascular origin.

DR. JAQUES: It is rather hard to reconstruct that last statement, since the post was done three years ago and not having any first hand knowledge of it, we anticipated this question, and found what we think probably happened. The fact that they were extensive hepatic metastases, some 20-30 percent, and one could frequently, if one looked at the available sections, see invasion of the efferent veins and some of the larger branches of hepatic veins, I would postulate that it probably is a metastasis of a metastasis. In other words, it had grown into the liver via the portal system, and then these metastases had grown into the efferent or larger hepatic veins and up the inferior vena cava into the lungs. I don't know of any other way in which the tumor emboli could enter the inferior vena cava directly, unless you have shunting. The presence of hepatopulmonary shunts in portal cirrhosis might represent an alternate pathway.

I don't think the paravertebral plexus would be in effect in this instance.

DR. SCHILLING: It is interesting that the very thing that produced the terminus of this patient may also have been the process that produced the acute ascites. This is a problem that I have been interested in and intrigued by for a long time. The mechanism of this whole sequence is not completely understood. Why, for instance, in an experimental animal, can you completely ligate the portal vein and also the vena cava below the liver, and find practically no alteration in the functional and clinical behavior of the animal? Yet if you proceed above the liver and only moderately constrict the inferior vena cava suprahepatically, ascitic fluid forms promptly and continously. How this is mediated through the liver is a matter of considerable conjecture.

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Oklahoma M

The University of Oklahoma Medical Center is the state's hub of medical education and patient referral. Its hospitals, University (265 and 35 bassinets), and Children's Memorial (204 beds), are the only state-supported medical teaching institutions in Oklahoma, with the result that patients represent a wide range of clinical problems. More than 90 percent are service cases.

Located in Oklahoma City, largest metropolitan area of the state, the Center occupies a 20-acre site in a residential area near the state capitol. In addition to the hospitals mentioned, the Center includes the School of Medicine (enrollment 400), Veterans Administration Hospital (488

Through its own and affiliated hospitals throughout the state, the University of Oklahoma Medical Center is able to provide exceptional training opportunities for its 29 interns and 130 residents in 19 specialties.

beds), the School of Nursing, the Speech and Hearing Division and the Oklahoma Medical Research Foundation. A $900,000 research building is under construction.

Inpatient admissions at University and Children's Memorial last year totaled 10,472, with an average daily census of 365. The autopsy rate was 66 percent. Patients are admitted through the outpatient clinics which handled 96,609 patient visits during the year. The two hospitals have a combined nursing service staff of 460 persons. The Veterans Administration Hospital functions under a Dean's Committee plan and its faculty-staff participates equally in undergraduate and postgraduate training.

There is close integration between the services of Center hospitals and with other affiliated institutions, affording residents a variety of learning experiences under a coordinated system. The residency program is faculty directed. Staff members of all Center institutions hold academic appointments, and all residency assignments are made through the clinical departments as a function of the School of Medicine.

Major clinical departments have a full-time staff as their organizational nucleus. The faculty consists of 85 full-time members and 565 part-time members, physicians who also are engaged in private practice. Each depart-

a Medical Center

HISTORY AND GROWTH

The physical plant of the Medical Center is undergoing steady growth.

The new research building, due for completion in January, is a four-story structure adjacent to University Hospital. It will contain 50 laboratories, three animal areas, and conference-library facilities.

Ground was broken in July for a $173,000 addition to the Speech and Hearing building which will double it facilities.

Established in 1910, the School of Medicine grew out of a preclinical medical school which had been in existence on the University of Oklahoma's Norman campus since 1900. The present School of Medicine building houses the basic science departments and the medical division of the OU graduate school. The first hospital, University, opened in 1919, and Children's Memorial was built in 1926.

The past ten years have brought construction of the Medical Research Institute, new outpatient clinic facilities at both Children's Memorial and University (the nine-story outpatient wing at University includes a psychiatric inpatient unit), and the VA Hospital, a general medical and surgical hospital with facilities for psychiatric and tuberculosis treatment.

Last year a four-story wing was added to University, creating space for an expanded Department of Radiology and additional laboratories for the surgery, anesthesiology and medicine departments. The ground floor radiology treatment area was especially built to house a 2 million volt Van de Graaff x-ray generator.

Remodeling of existing buildings has occurred as needs developed. An area at Children's Memorial was renovated to provide a large operating room for open heat and pediatric surgery.

Besides the School of Nursing, paramedical training programs at the OU Center include a School of Physical Therapy, a dietetic internship, and schools of x-ray technology, medical technology, and cyto-technology. The hospitals provide field experience for students in the OU School of Social work.

ment head has direct responsibility for supervision of resident and intern training.

The Center offers 130 residencies in 19 specialties and subspecialties. Residency programs are tailored to give experience with a variety of cases within any particular discipline and to meet special clinical and research goals. Time is allotted for electives to give the new physician an opportunity to explore.

Internship

Five types of internship are available and positions are currently filled by 29 men and women. Most interns are on a rotating general plan, set up primarily for those who have not decided on a specialty or who want to do general practice. They spend three months each on medicine and surgery, two months each on pediatrics and obstetrics-gynecology, one month on anesthesiology and one month on an elective service.

Other internships are designed to give a larger proportion of time to either medicine, surgery, pediatrics or pathology.

Emphasis in all house staff programming is on continuing education with direct, progressively stepped-up responsibility for patient care, and through teaching contacts with the attending and full-time staff, regular departmental conferences and symposia.

Each major service has weekly grand rounds, staff and service conferences. Conjoint conferences also are held weekly, and pathology presents gross pathological findings of all necropsy cases each week.

Residents

Residents take an active part in the undergraduate teaching program of the School of Medicine as well as in supervision of interns. Close cooperation between the basic science and clinical areas affords the resident quick access to well-trained individuals for consultation on a broad spectrum of patient problems.

Investigative effort is encouraged and opportunity given for research—even at the beginning of the residency period. In addition to scientific studies, in virtually all departments, faculty and house staff enjoy cooperation with the Oklahoma Medical Research Institute, operated by a private foundation.

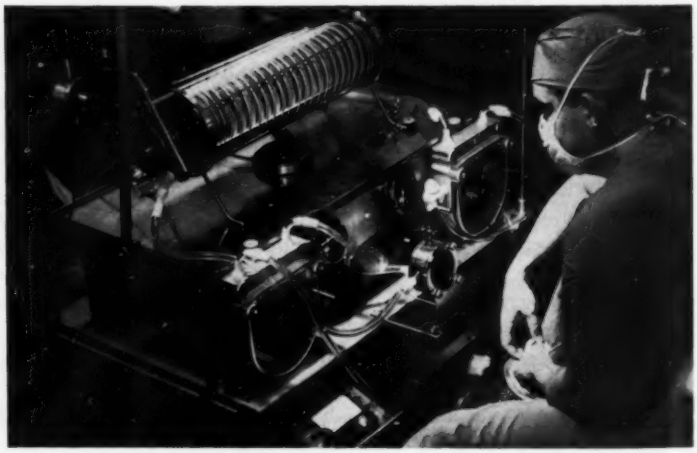
The Institute maintains a 16-bed research hospital for metabolic, cancer, psychosomatic and heart patients.

A common aim of the residency programs is to preserve the stimulus of a learning experience by placing equal stress on discipline and creativity. Residents are encouraged to identify themselves with an individual interest early in the training period. For example, the Department of Medicine has five "project rooms," specialty conference room-laboratories, close to the wards at University Hospital. Each is supervised by one of the subdepartment heads. Senior men and research fellows are readily available for consultation and guidance, and the environment often proves a stimulus for initiating scientific studies.

In most of the Center residency programs, the general trend toward pyramiding is avoided except in the last year. Research, scholarly activities and participation in the third and fourth year medical teaching schedule are encouraged.

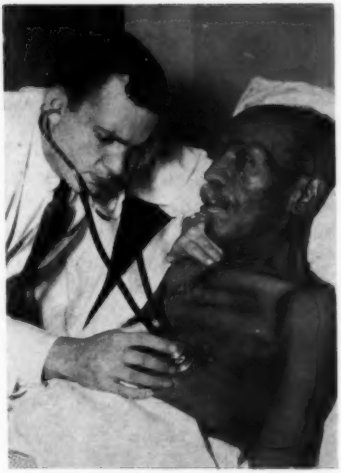
The major services annually provide opportunities for residents to attend one of the important national scientific meetings. Similarly, research and clinical investigation is given impetus by a House Staff Association, organized at the Center

Surgery resident, Howard Keith, M.D., takes charge of the rotating disc oxygenator during open heart procedures at Children's Memorial Hospital.



six years ago for all interns and residents in the state. Each year members present their own scientific program and awards are given for outstanding work.

The Medical Center sponsors a well-rounded program of postgraduate education for practicing physicians. Conferences, symposia (including the annual Oklahoma Colloquy on Advances in Medicine), and monthly, short courses are conducted by faculty and visiting scientists of national reputation. Resident and intern participation is welcomed and they attend without cost.



Responsible for a wide range of medical problems, Dr. Thomas Lynn, chief resident in medicine, examines patient.

Preventive Medicine—Public Health

A unique program started this year is a clinical residency in preventive medicine and public health, the first to give training in a university medical center. It is conducted by the Department of Preventive Medicine and Public Health in cooperation with the Oklahoma State Department of Health. Fellowships of $5,000 a year are available.

Residents have a choice of a one- or two-year program. Under the latter, the first year is spent at the Medical Center, where the physician works alongside residents on other services and participates in activities having public health significance, such as clinics for rheumatic fever, convulsive disorders, mental retardation, chest diseases and prenatal care. The second year is conducted in public health units.

Medicine

Residencies in medicine have the advantage of an integration of services with Central State Hospital (Norman, Okla.), one of the state mental institutions, as well as with the services at University, Veterans Administration Hospital and the Oklahoma Medical Research Institute. The Department of Medicine operates

MEDICAL CENTER WEEKLY SCHEDULE

Monday

Gyn Grand Rounds	7:30 AM
Psy Milieu Therapy Conf	8:00
Psy Inpatient Conf	8:00
Psychotherapy Seminar	10:00
Neuro-Physiology Seminar	12:00
Gross Path Conf	12:30 PM
VA X-Ray Conf	1:00
Cardio-Neurology Rounds	1:30
Univ Chest Rounds	2:00
Mental Hy Clin Intake	2:30
Hematology Rounds	3:00
VA Neurology Rounds	3:00
Renal & Electrolyte Rds	3:30
Pediatric Radiology Conf	4:00
Therapeutic Conf	4:00
X-Ray Dept. Diag Conf	5:00
Orth Surg Clin Conf	5:30
Otorhinolaryngology	5:30
Radiology Conf	7:00

Tuesday

VA Dermatology Rounds	8:00 AM
Psy Inpatient Conf	8:00
Obstetrical Ward Rounds	8:30
Dermatology	8:30
Dermatopathology	10:00
Professorial Rounds	10:00
Derm Journal Club	11:00
Ophthalmology Rounds	11:00
Endocrinology Seminar	12:00
Oral Surg Grand Rounds	12:00
VA Path Conf	1:00 PM
Gastrointestinal Rounds	2:00
Tumor Board	2:15
Morbidity & Mortality	3:00
VA Psych Consult Conf	3:00
Pediatric Rounds	3:00
Cardiology Rounds	3:30
Medical X-Ray Conf	4:00
UH Surg Path Conf	4:00
Pediatric Chart Conf	4:30
X-Ray Dept. Diag Conf	5:00

Wednesday

Psy Milieu Therapy Conf	8:00 AM
Psy Inpatient Conf	8:00
Obstetrical Ward Rounds	8:30
Plastic Grand Rounds	12:00
Endocrine Rounds	1:00 PM
Neuropathology	1:00
VA Chest Conf	2:00
Derm Grand Rounds	3:30
Clin Path Conf	4:00
Surg X-Ray Conf	4:00
X-Ray Dept. Diag Conf	5:00

Thursday

Clin Tumor Conf	8:00 AM
Psy Inpatient Conf	8:00
Pediatric Grand Rounds	8:00
Obstetrical Ward Rounds	8:30
Derm Clin Diag Conf	8:30
Closed Ward Clin Conf	9:00
Infectious Disease Conf	11:00
OB Journal Club	11:00
Hematology Rounds	1:30 PM
Diabetes Rounds	3:30
Med Center Card Conf	4:00
Cardiac Cath-Anglo Conf	5:00
Anesthesiology Seminar	5:30
Orth Surg Clin Lect	5:30

Neurology Conf	6:30
Otorhinolaryngology	7:30

Friday

Psy Inpatient Conf	8:00 AM
VA Dermatology Rounds	8:00
Orth Surg Clin Conf	8:00
Research Rounds	8:45
VA Neurology Rounds	10:00
VA Research Meeting	11:00
Patho-Physiology Conf	11:00
PM & PH Seminar	12:00
Gastric Research Seminar	12:00
Ophthalmology	12:00
Medical Surgical Conf	2:15 PM
Psy Rotating Seminar	3:00
Professorial Rounds	3:30
Pediatric Conf	4:00
Surg Panel Review	4:00
X-Ray Dept. Diag Conf	5:00

Saturday

Neurology-Neurosurgery	8:00 AM
Surg Grand Rounds	8:00
Psy Inpatient Conf	8:00
Otorhinolaryngology	8:00
Gastroenterology Rounds	8:15
Urology Conf	8:30
Anesth Basic Sci Sem	9:00
Surg Morb Mort Conf	9:00
Radiation Therapy Conf	10:00
Resident Presentation	10:00
Pediatric Journal Club	10:00
Psychiatry-Neurology	11:00
Professorial Rounds	11:00

an experimental therapeutic unit at the Norman institution and also at the VA Hospital.

Ward assignments account for about half of the first two years of the medical residency. During his first year, the resident may have special instruction in methodology and closely supervised clinical experience in cardiology or hematology. Elective time may be spent in neurology, gastroenterology, psychosomatic medicine, chest diseases, endocrinology, metabolism, hematology or cardiology.

The second year resident in medicine has a larger segment of time free for a chosen subspecialty. In the third year, he has an opportunity to take charge of ward service but has at least half of his time free of routine for special work along lines of his particular interest.

Surgery

The surgical residency is four years, with the option of a laboratory and experimental year and a fifth and sixth year in cardiovascular and thoracic surgery. This non-pyramidal program has space for four to six residents for one to three years of training leading into the surgical specialties. There are positions for four chief residents in surgery.

STIPENDS, HOUSING

Minimum stipends for residents are: first year, $2400; second year, $2700; third year, $3000; fourth year, $3300. They receive uniforms, laundry of uniforms, and personal health service. Luncheon is provided free in the physician's dining room and low cost meals are served in the University Hospital cafeteria.

There is low rental housing in the residential area convenient to OU Hospitals. Some rooms are available in House Staff Quarters for unmarried male residents. Wives of house staff members find job opportunities in the Medical Center and the business districts. The Center Personnel Office welcomes applications from wives with nursing, technical, secretarial and clerical skills.

LIBRARY

The Medical Center library, located in the School of Medicine building, is an open stack unit with 48,000 volumes valued at more than $500,000, and a subscription list of over 1,100 journals and periodicals.

In addition, the house staff has round-the-clock access to departmental libraries in the hospitals and may use the Veterans Administration Hospital library.

A total of 350 surgical teaching beds are available to the residency program. Five percent are private. In addition to the unification of services at the Center, the program is affiliated with Central State Hospital.

Members of the full-time faculty of the Department of Surgery, which includes four Markle scholars and two Ph.D's, emphasize that understanding and application of the basic sciences are an integral part of the surgeon's training. Each resident is assigned to pathology full time for three months. A direct contact is made with the Department of Pharmacology through rotation on anesthesiology. The appropriate basic science discipline is integrated into every seminar and conference discussion.

Ob-Gyn

The residency program in obstetrics-gynecology is affiliated with Wesley Hospital, Oklahoma City, to give additional experience with private cases, and with the Variety Club Health Center, where clinics are conducted for indigent patients. Each year is divided between University and Wesley. In the third year, the resident has six months experience as senior resident in charge of obstetrics and six months in charge of gynecology.

on the pathogenesis of pyelonephritis:

"An inflammatory reaction here [renal papillae] may produce sudden rapid impairment of renal function. One duct of Bellini probably drains more than 5000 nephrons. It is easy to see why a small abscess or edema in this area may occlude a portion of the papilla or the collecting ducts and may produce a functional impairment far in excess of that encountered in much larger lesions in the cortex."[1]

The "exquisite sensitivity"[2] of the medulla to infection (as compared with the cortex), highlights the importance of obstruction to the urine flow in the pathogenesis of pyelonephritis. "There is good cause to support the belief that many, perhaps most, cases of human pyelonephritis are the result of infection which reaches the kidney from the lower urinary tract."[3]

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References: 1. Schreiner, G. E.: A.M.A. Arch. Int. M. **102**:32, 1958. 2. Freedman, L. R., and Beeson P. B.: Yale J. Biol. & Med. **30**:406, 1958. 3. Rocha, H., et al.: Yale J. Biol. & Med. **30**:341, 1958.

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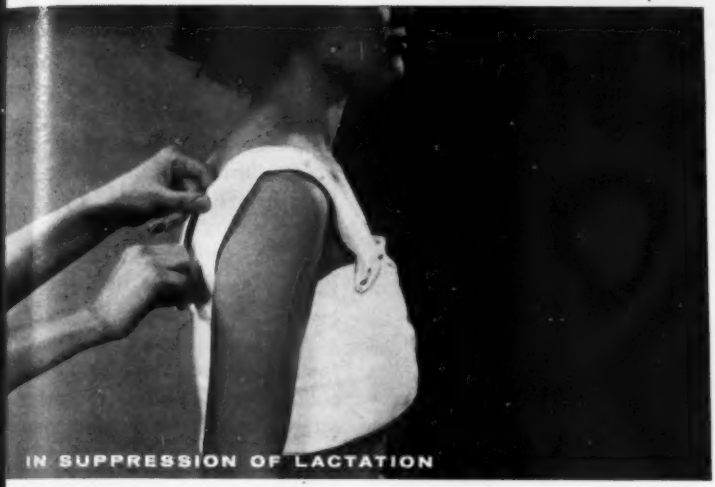
RESIDENCIES	YEARS	CHIEF OF SERVICE
Anesthesiology	2	Joseph M. White
Dermatology	3	John H. Lamb
General Practice	1-2	Irwin H. Brown (director of program)
Medicine	4	Stewart Wolf Jr.
Neurosurgery	4 (includes 6 months of general surgery)	Jess D. Herrmann
Neurology	3	Stewart Wolf Jr. Gunter R. Haase
Obstetrics-Gynecology	3	Milton J. Serwer Joseph W. Kelso
Ophthalmology	2	James R. Reed
Oral Surgery	1	Albert R. Drescher
Orthopedic Surgery	3-4	Don H. O'Donoghue
Otolaryngology	4 (first year in general surgery)	Lee K. Emenhiser
Pathology	4	William E. Jaques
Pediatrics	3	Harris Riley Jr.
Preventive Medicine-Public Health	1-2	William W. Schottstaedt
Psychiatry	3	L. J. West
Radiology	3	G. R. Ridings
Surgery	4-5	John A. Schilling
Thoracic Surgery	2 (after 3 or 4 years general surgery)	Gilbert S. Campbell
Urology	4 (first year in general surgery)	Donald W. Branham

General Practice

A residency in general practice at the OU Center gives physicians a choice of a one year rotating program or a disciplined two year plan. If a one year program is chosen, the resident spends three months each on medicine and surgery, two months on pediatrics, one month on obstetrics-gynecology, and three on electives. Under the two-year plan, he takes one year on medical services and one on surgery services.

The pediatric residency, too, offers concentrated work in a subspecialty plus well-rounded experience in the broad field of pediatrics.



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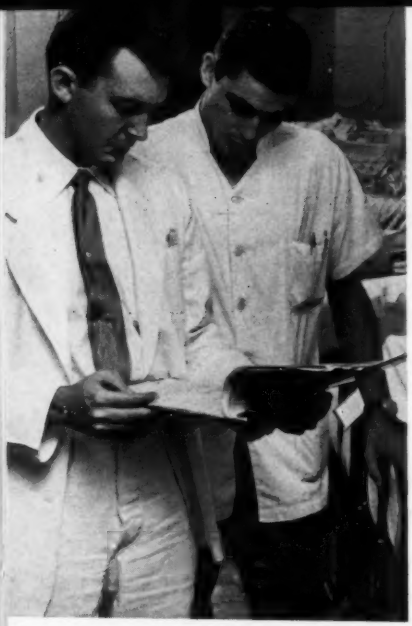

Teaching of undergraduates is an important function of residents and interns.

In addition to the several inpatient services at Children's Memorial Hospital, there is a comprehensive outpatient clinic with both general and special pediatric clinics and an active emergency service. Affiliated institutions, besides the Oklahoma Medical Research Institute and the Speech and Hearing Division, are Children's Convalescent Hospital in suburban Oklahoma City and the Oklahoma Cerebral Palsy Institute at Norman.

Besides time on a major inpatient service, residents rotate through the following specialty services, all directed by a full-time member of the Department of Pediatrics: pediatric cardiology, hematology, infectious diseases, neurology, endocrinology and metabolism, and surgery.

They spend time in the Child Study Center, a special section at Children's Memorial designed to give comprehensive care to the child with symptoms of mental retardation. Residents also rotate through the special outpatient clinics, including pediatric allergy, metabolism, rheumatic fever, child guidance, well-baby, hematology, neurology, convulsive disorders and cardiac.

A third year of residency training is available for those wishing experience in subspecialties such as pediatric cardiology, neurology, infectious disease, endocrinology and biochemical genetics. The resident may participate in planning his program, including experience in an appropriate basic science department. The third year is also open to candidates who have taken earlier residency training at other centers.

Fellowships of research and clinical activity are available to physicians who desire pediatric training beyond the third year of residency.

COMMUNITY

Oklahoma City has many outlets for cultural and recreational interests. The metropolitan area has a 1960 census of some 480,000 persons. Living costs are comparatively moderate.

The Oklahoma City symphony orchestra, under direction of Guy Fraser Harrison, presents an annual series of subscription concerts with guest artists. Both permanent and traveling exhibits are featured in the galleries of the new Oklahoma Art Center building.

Faculty House, operated by an association of faculty members, is an attractive focal point for professional and social activity.

Many departments provide residents with memberships in the well-equipped downtown YMCA, a few minutes drive from the hospitals. A city recreation center, with tennis courts, is within a few blocks of the campus. Also nearby are golf courses, lakes and swimming pools.

Training in orthopedic surgery covers children's as well as adult orthopedics and fractures. Centered at the Medical Center, where the three teaching hospitals provide a variety of clinical material, the program is also affiliated with two private Oklahoma City hospitals, St. Anthony and Bone and Joint Hospitals, both of which have substantial children's services.

All of the orthopedic staff members at the two private hospitals are also faculty members, assuring continuity of the educational program. Instruction in basic sciences is more than the equivalent of a six months course. Lectures are scheduled regularly, four evenings a week.

An unusual feature of the psychiatric residency is a unification of services which strikes a balance between a variety of clinical cases and an opportunity for intensive, long-term work with the same patients. Instead of rotating from one institution to another, the resident sees patients in all hospitals during the entire training period.

The program is not oriented around one school of thought, but instead is planned to give knowledge of psychoanalysis, chemotherapy, brain function and other areas. An extraordinary degree of individual supervision is possible because of a limit of six new residents per year.

Details of these and other Medical Center residency programs (see list) may be obtained by writing to the chief of service at the Medical Center, 800 NE 13, Oklahoma City.

William W. Schottstaedt, M.D.

Guest Editorial

PREVENTIVE MEDICINE: A Field of the Future

The practice of medicine is becoming increasingly concerned with prevention. Pediatricians have long stressed preventive measures, as have many internists. One hears with increasing frequency of preventive psychiatry, the need to treat emotional problems before they become severe or firmly fixed. Surgeons may, on occasion, be heard to say that the real answer to traumatic surgery is accident prevention. All seem to agree that the prevention of avoidable disease or injury is one of the important goals of medical practice. A recent survey has indicated that one-sixth of patient visits to the average practitioner are for preventive purposes.

Such facts indicate there is a need for emphasizing prevention in our educational and training programs. To meet this need, a clinically-oriented training program in preventive medicine is being developed by the Department of Preventive Medicine and Public Health of the University of Oklahoma School of Medicine. It is intended for physicians who have completed their internships and wish a year in preventive medicine as part of a program toward certification in a clinical field.

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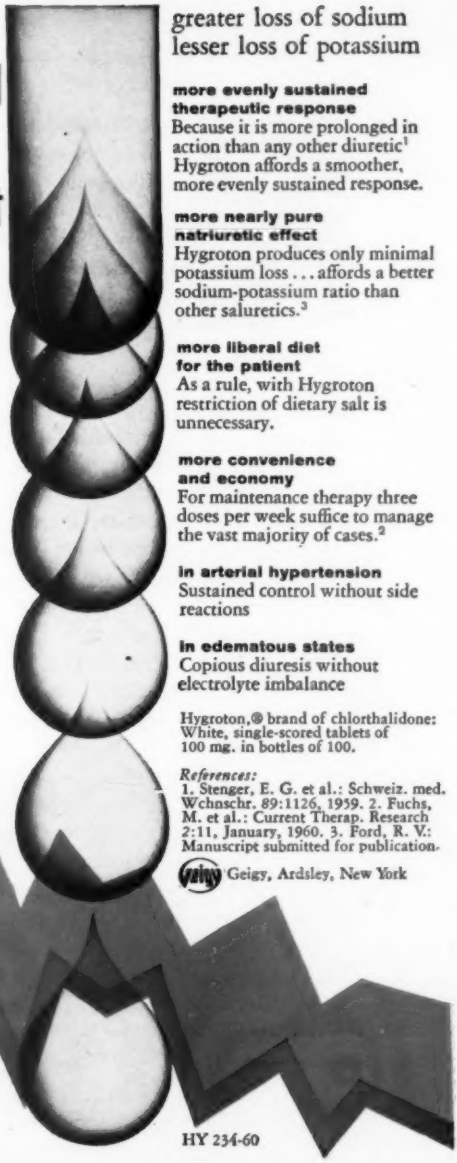

greater loss of sodium
lesser loss of potassium

more evenly sustained therapeutic response
Because it is more prolonged in action than any other diuretic[1] Hygroton affords a smoother, more evenly sustained response.

more nearly pure natriuretic effect
Hygroton produces only minimal potassium loss . . . affords a better sodium-potassium ratio than other saluretics.[3]

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As a rule, with Hygroton restriction of dietary salt is unnecessary.

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For maintenance therapy three doses per week suffice to manage the vast majority of cases.[2]

in arterial hypertension
Sustained control without side reactions

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Copious diuresis without electrolyte imbalance

Hygroton,® brand of chlorthalidone: White, single-scored tablets of 100 mg. in bottles of 100.

References:
1. Stenger, E. G. et al.: Schweiz. med. Wchnschr. 89:1126, 1959. 2. Fuchs, M. et al.: Current Therap. Research 2:11, January, 1960. 3. Ford, R. V.: Manuscript submitted for publication.

Geigy, Ardsley, New York

HY 234-60

Guest Editorial

William W. Schottstaedt, M.D.*
Oklahoma University School of Medicine

It is intended as well for those who look forward to academic careers in preventive medicine or who wish to work with voluntary or governmental agencies interested in individual or community health. But it can be of value to any physician whether his interests are primarily in this field or not.

The term "preventive medicine" has broad connotations. The prevention of disease is the most obvious meaning and many activities of a general practitioner are directed at this goal: immunizations, premarital examinations, prenatal and well-child care, school health examinations, and preemployment physicals, to mention but a few. The prevention of complications and disability is equally important, however, though it may be less obvious. What has been accomplished in arresting the acute inflammatory reaction of rheumatoid arthritis if, despite this, contractures and deformities develop and the patient becomes totally disabled? How effective is subtotal gastrectomy for peptic ulcer if this is followed by the dumping syndrome or marginal ulceration? The measures taken to avoid these eventualities are preventive medicine in practice.

Concern for prevention of complications and disability leads quite naturally to an interest in rehabilitation as well. The physician's job is not truly done until the patient is restored to a useful and productive life within his limitations. The physician with genuine concern for the individual with a disability which might have been corrected had it been treated early cannot be

*Chairman, Department of Preventive Medicine and Public Health

even if your patient is a whip snapper*

he'll soon be riding high again, thanks to

PARAFON®

(PARAFLEX® + TYLENOL®)

for muscle relaxation plus analgesia

in arthritis

PARAFON® with Prednisolone

McNEIL McNeil Laboratories, Inc.
Philadelphia 32, Pa.

prescribe PARAFON in low back pain—sprains—strains—rheumatic pains

Each PARAFON tablet contains:

PARAFLEX® Chlorzoxazone† ..... 125 mg.
The low dosage skeletal muscle relaxant

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The superior analgesic in musculoskeletal pain

Dosage: Two tablets t.i.d. or q.i.d.

Supplied: Tablets, scored, pink, bottles of 50.

Each PARAFON with Prednisolone tablet contains: PARAFLEX® Chlorzoxazone† 125 mg., TYLENOL® Acetaminophen 300 mg., and prednisolone 1.0 mg.

Supplied: Tablets, scored, buff colored, bottles of 36.

Dosage: One to two tablets t.i.d. or q.i.d.

Precautions: The precautions and contraindications that apply to all steroids should be kept in mind when prescribing PARAFON with Prednisolone.

*tailman on hook-and-ladder fire engine

†U.S. Patent No. 2,895,877

concerned also with the great social problem which this represents. Many disabled persons now supported by society could, with proper medical care and the coordinated efforts of physicians, para-medical personnel, vocational counselors, and agencies involved in training and employment, have been returned to self-support and productivity. What shall we call this? Good medical care, preventive medicine, public health? It is all of these at one and the same time.

Physicians in public health are likewise becoming aware that problems in community health cannot be solved without thorough grounding in clinical medicine and the principles of medical care. Home care programs, community rehabilitation centers, and public health programs in the detection and control of chronic diseases all require an intimate knowledge of clinical medicine if they are to be effective. These programs alter the health environment of the community just as certainly as did the sanitation and infectious disease programs of previous generations. They are public health no less for being firmly grounded in clinical medicine. Similarly for the problems of mental health. Adequate programs for the follow-up of discharged mental patients cannot be conducted without the knowledge of mental disorders, their clinical manifestations, danger signals which may appear in the patient, and potential sources of trouble which may be found in the patient's environment. This is psychiatry, preventive medicine, or public health depending only upon one's point of view.

Training in preventive medicine can be included as a basic science year toward certification in many clinical fields of medicine. It deserves serious consideration as a part of any residency training program. During a year in preventive medicine the resident may wish to

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devote himself primarily to preventive concepts as they apply to clinical practice. He may wish to emphasize rehabilitative activities and become familiar with the many community resources available to physicians and their patients to assure that medical procedures intended to rehabilitate actually result in a return to productivity. He may elect, instead, to use the year for intensive training in epidemiology or biostatistics. Or the preventive problems of radiation therapy and of atomic medicine may have more attraction for him. The broad field of civil defense deserves the special attention of some. Others need to concern themselves with the problems of medical administration and the distribution and utilization of medical personnel and medical care facilities. All of these are important facets of medicine. The resident who desires better acquaintance with any one of them would do well to spend a year in preventive medicine.

It should be evident, therefore, that the field of preventive medicine has much to offer. As an area of specialization it affords careers in academic posts or in the special areas of public health, occupational medicine, or aviation medicine. But it can also be a valuable year in the training of practicing physicians or investigators. It can give new breadth and meaning to research activities. And for the clinician, through enlarging his outlook on the aims of therapy and the scope of medical practice, it offers a new perspective in clinical practice, enriching his contacts with his patients.

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SEDATION

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AND HYPOTENSION

The use of narcotics alone in preoperative analgesia too often risks serious undesirable effects including respiratory depression and hypotension. Narcotics combined with phenothiazines may risk other untoward effects including jaundice and blood dyscrasia.

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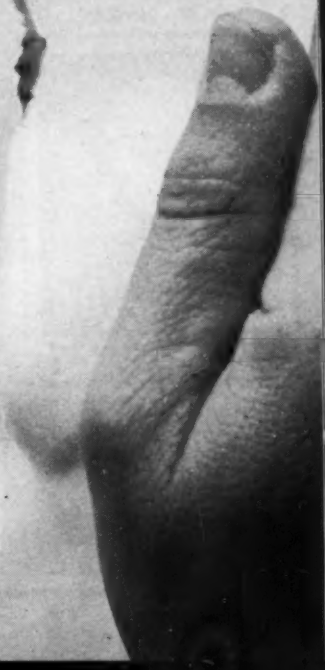

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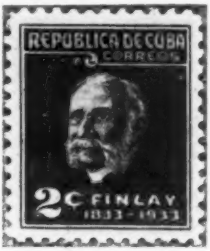
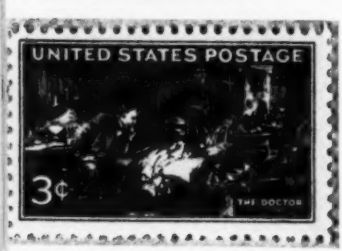
Famous physicians, hospitals, diseases, discoveries—a colorful, geographical history of medicine from earliest times—available through this inexpensive but fascinating hobby for doctors.





The Stamp

Above: France, 1940, B103; Cuba, 1933, 319; U. S., 1947, 949; Danzig, 1939, 239; W. Germany, 1954, 722, and France, 1936, B59. Right: Philippines, 1953, 603; Algeria, 1954, B73, and U. S., 1957, 1087. (Scott catalogue numbers follow year of issue)

f Medicine

Otho C. Hudson, M.D.

Collecting postage stamps having medical significance has become the particular off-hours interest of doctors and nurses throughout the world. The subjects are often exclusively medical in character; however, at the collector's option, they can include other related fields such as pharmacy, chemistry and physics.

Internationally, postal stamps are issued in a variety of types. Regular issues are for prepayment of postage. Semi-postal stamps bring part of the stamp purchase price to the government and part to the organization for which the semi-postal was issued. In addition there are postal tax stamps, commemoratives and others. In the U. S., only regular and commemoratives are issued.

Although the really enthusiastic philatelist would not ordinarily restrict himself to medical stamps, the American Topical Association has a subdivision for persons interested in medical philately. This group issues a periodical, *Topical Time,* and holds meetings of interest to the topical collector.

One of the fascinations of medical stamp collecting, other than its relationship to the profession, is that it can be accomplished without an understanding of the intricacies of perforations, water marks, paper, printing, rarities and "errors."

Medical subjects include physicians, nurses, hospitals, operating rooms, doctors who have discovered ways of preventing disease or the causes of a disease, rehabilitation of the injured or amputee, and specific drugs. Stamps can be collected unused (mint) or, sometimes at a lesser cost, used (cancelled).

Austria in 1937 issued a series of stamps honoring doctors including von Swieten, von Auenbrugg, von Rokitansky, Skoda, von Hebra, von Arlt, Hyrtl, Billroth, and Meynert, all prominent in Viennese medical history.

Disease prevention has been a popular subject of medical philately. Semmelweis, for example, who proved child-bed or puerperal fever was due to infection, has been honored on the stamps of Hungary in 1932 and 1954 and by the German Federal Republic (West Germany) in 1956.

F. Widal, developer of the test for diagnosis of typhoid fever which bears his name is seen on a stamp of France in 1958. Von Behring, father of serum therapy and Nobel Prize winner, appears on a German stamp of 1940 and with Paul Ehrlich on a 1954 stamp.

Robert Koch, a country practitioner who studied anthrax and tuberculosis and isolated the tubercle bacillus, is seen on stamps of Danzig, Belgium, and Germany. Noguchi, who established the link between Treponema pallidum and syphilis, is shown on a 1949 Japanese stamp.

Dr. Crawford Long, pioneer in the use of ether anesthesia, appears in the United States "Famous American" series of 1940; more recently, Ephraim McDowell was represented on a 1959 issue.

Leeuwenhoek, inventor of the microscope, is pictured on a Netherlands stamp of 1937. The microscope has also appeared as a part of the design of many stamps. There are stamps showing men who did research and

laboratory work in medicine; Calmette, Bernard, and Pasteur are among the men so honored.

Nor have the ancients been forgotten. Im Hotep, an Egyptian physician who became a deity, appears on a stamp for the International Congress of Medicine in Egypt (1928). A statue of Hippocrates, "The Father of Medicine," appears in a series of stamps from Greece in 1947.

Avicenna, ancient physician in the Arabian countries, Aesculapius, the god of Medicine, and his daughter, Hygeia, goddess of health, have been represented on stamps during the past quarter century.

Nursing

Nurses, too, are commemorated. Florence Nightingale has been shown on many stamps from different countries. Nurse Maass appeared on a Cuban stamp, and Edith Cavell is remembered by a stamp depicting her, as well as one from Canada which pictures a mountain named for her.

There are nurses on many stamps in combination with other subjects. Canada in 1958 issued a special stamp in honor of nursing.

Other subjects add to the collection: expectant mothers and new born, suckling babes, pediatric examination, disease and injury are represented. Even death, shown as a dark angel on a Lithuanian stamp of 1934, is portrayed. The variety is seemingly endless.

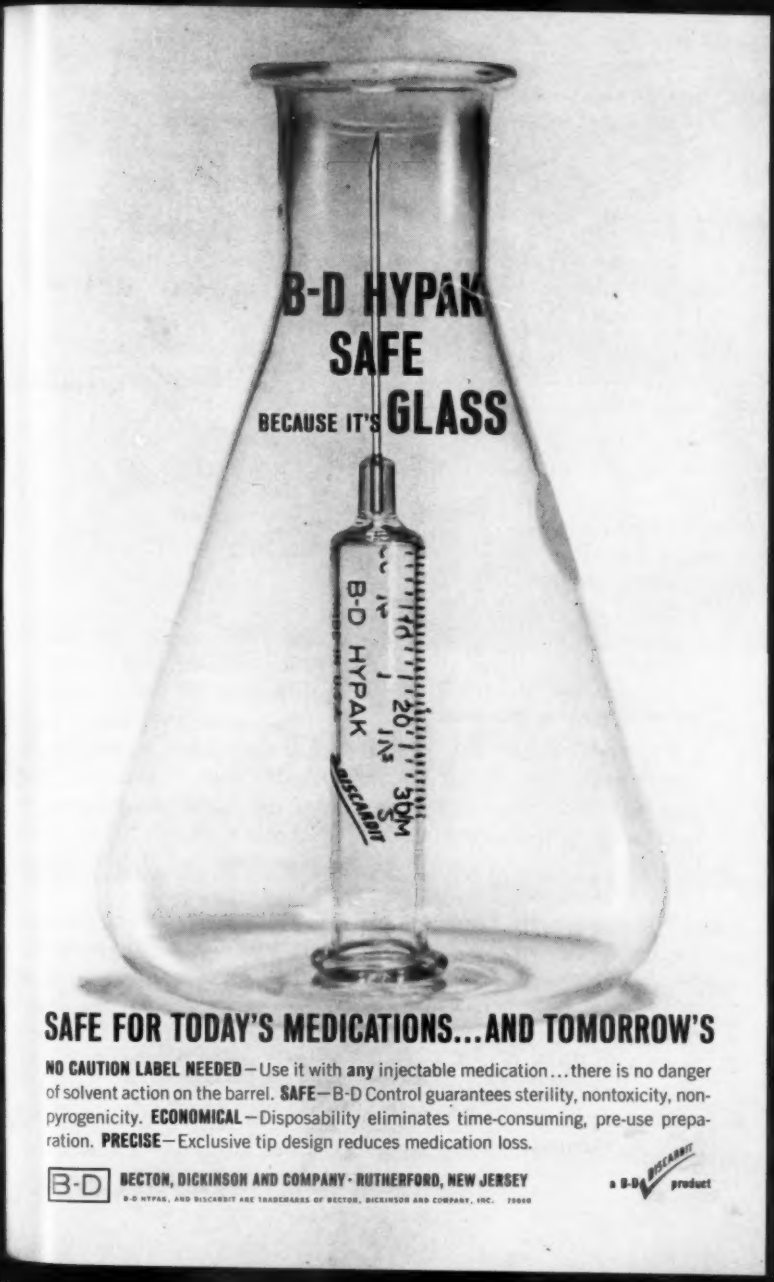
A selection of stamps on medical subjects is presented here to give the reader a better idea of both the substance and flavor of this fascinating hobby. Each stamp carries its Scott catalogue number so that those interested in beginning or adding to a collection may order these stamps from a local dealer.

Hospital operating room

Various countries have issued stamps showing hospitals, sanatoria, O.R.s and clinics.

Salvador (1912), Guatemala (1919), France (1918), San Marino (1918), Costo Rica (1926), and Cyprus (1928) were the earlier countries issuing these stamps. Since 1930 there have been many countries having hospitals or hospital scenes as the subject of stamps.

Hospitals in the jungles and in cities, hospital ships, military field hospitals, sanatoria for tuberculosis patients, cancer, maternity, pediatric, orthopedics, research and other specialty hospitals appear on stamps.



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NO CAUTION LABEL NEEDED—Use it with **any** injectable medication...there is no danger of solvent action on the barrel. **SAFE**—B-D Control guarantees sterility, nontoxicity, nonpyrogenicity. **ECONOMICAL**—Disposability eliminates time-consuming, pre-use preparation. **PRECISE**—Exclusive tip design reduces medication loss.

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a B-D DISCARDIT product

Austria—1954.
Semi-postal, for social welfare.
Value: 1.45s + 35g.
Color—Dark blue-green.
Scott #B291

France—1941.
Semi-postal, for control of cancer.
Value 2.50 fr + 50c.
Color—Slate black and brown.
Scott #B110

Science fighting disease

Countries which have issued stamps to raise money for cancer control include Sweden, Danzig, Denmark, Afghanistan, Cuba, Ecuador, France, French Colonies, Monaco and Panama.

The designs on these stamps are interesting, such as the one here showing a many-headed snake about to be attacked by a sword-wielding figure of Science. Sweden in 1928 issued a semi-postal series of five stamps to commemorate the 70th birthday of King Gustavus V, the surtax being used to control cancer. Sweden was the first country to issue stamps for this purpose.

Denmark in 1929 issued a series of semi-postal stamps for the Danish Cancer Committee. They show the staff of Aesculapius and a crown. Norway (1931) issued a stamp showing the Norwegian Radium Hospital.

France and her colonies in 1938 issued stamps to commemorate the 40th anniversary of the discovery of radium by Pierre and Marie Curie, and a 1946 French stamp shows Becquerel, discoverer of radioactivity. Roentgen appears on Danzig and German stamps.

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effective oral skeletal muscle relaxant and mild tranquilizer

Trancopal enables patients to resume their duties in from one to two days...

In a recent study of Trancopal in industrial medicine,* results from treatment with this "tranquilaxant" were good to excellent in 182 of 220 patients with muscle spasm or tension states. From clinical examination of those patients in whom muscle spasm was the main disorder, "... it was apparent that the combined effect of tranquilization and muscle relaxation enabled them to resume their normal duties in from twenty-four to forty-eight hours.... **It is our clinical impression that Trancopal is the most effective oral skeletal muscle relaxant and mild tranquilizer currently available."***

Side effects occurred in only 12 patients, and: "No patient required that the dosage be reduced to less than one Caplet three times daily because of intolerance."*

Dosage: Adults, 200 or 100 mg. orally three or four times daily. Relief of symptoms occurs in from fifteen to thirty minutes and lasts from four to six hours.

How Supplied: Trancopal Caplets®
200 mg. (green colored, scored), bottles of 100.
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*Murray, R. D.: *Current Therap. Res.* 2:127, April, 1960.

Trancopal (brand of chlormezanone) and Caplets, trademarks reg. U.S. Pat. Off.

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Medical congresses

Medical meetings have been commemorated on stamps from all over the world. The World Medical Association, meeting in Istanbul in 1957, was honored by two stamps. One of these portrays what was probably the earliest hospital in the world, established by Suleiman.

Egypt (1937) issued a series of stamps for an Ophthalmological Congress, and (1938) for a Leprosy Congress. The United Arab Republic (1958) issued a stamp to commemorate the Afro-Asian Ophthalmological Congress.

Brazil (1952) issued stamps for the Congress of Industrial Medicine, for the World Congress of Homeopathic Medicine (1954), and the 10th International Congress of Nursing (1953). Turkey in 1955 issued a postal tax series of stamps for the International Council of Nurses meeting. Portugal and her colonies issued stamps (1952) for the Congress on Tropical Medicine and Curacao issued the first Mental Health Congress stamp (1957). Many Central and South American countries have issued stamps to commemorate health and sanitary congresses.

Leprosy

Leprosy or Hansen's disease has been known since Biblical times. Treatment has improved with the discovery of newer more effective drugs, and the isolation of patients in leper colonies is not now often needed. A hydnocarpus twig has been the subject of an Egyptian stamp (1938). A drug for treatment of leprosy is made from this plant.

Brazil in 1952, 1953, 1954, 1955, 1957 and 1958 issued postal tax stamps to raise money for the care and treatment of lepers.

The Belgian stamp shown here pictures Father Damian who devoted his life to help lepers and

Turkey—1957.
Commemorating World Medical Association, 11th general assembly.
Value: 25k.
Color—Vermillion and yellow.
Scott #1251

M4

Gifts and Prizes for Doctors...

Handcarved wooden miniatures by old world craftsmen

Imported from Europe, these richly detailed, hand-painted figures make ideal conversation pieces, gifts, bridge prizes, etc., and they add a bright note to any home or office.

Each 7 inches high—$7.95 postpaid, or $7.45 each by the dozen.

Replicas of 13 different figures for your choice—Gynecologist (M1), Pediatrician (M2), Psychiatrist (M3), General Practitioner (M4), Surgeon (M5), Orthopedist (M6), Ophthalmologist (M7), Ear, Nose and Throat Specialist (M8), Dentist (M9), Radiologist (M10), Pharmacist (M11), Veterinarian (M12), Chemist (M13).

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M5 M10 M11

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MEDICAL TIMES OVERSEAS, INC.

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Belgium—1946.
Father Damian Comforting Leper.
Semi-postal, for erection of a museum in Louvain.
Value: 1.75 fr + 18 fr.
Color—Rose-brown.
Scott #B419

Bulgaria—1953.
Opium Poppy.
Regular issue.
Value 20s.
Color—Carmine-rose.
Scott #837

died of the disease. Father Damian lived on Molokai Island of Hawaii.

Cuba pictured Hansen on a stamp issued (1948) for the International Leprosy Congress in Havana.

France in 1956, French Equatorial Africa in 1957, and French West Africa in 1957 show the Maltese Cross of the Knights of Malta. The society helps care for lepers. Dutch New Guinea (1956) issued a series of stamps showing leprosaria, and Surinam, in 1947, had stamps for the help of lepers.

Others

Other diseases, too, are recognized in the stamps of many nations. Tuberculosis, for example, is recorded in a large number of issues.

Various medicinal plants have appeared on stamps. Belgium shows arnica, foxglove, and poppy plants (1949). Bulgaria shows

belladonna and poppy plants and Mauritius pictures aloe plant (1953). Jugoslavia issued a series of stamps (1957) including belladonna, saffron, valerian, foxglove, and pyrethrum.

Obviously, a brief article can only touch the surface of this colorful hobby. However, if your curiosity has been sparked to the point of beginning a small collection of your own, you will find many hours of enjoyment through the stamps of medicine.

It Pays to Read . . .

MEDIQUIZ® NOTE

At this writing, we are beginning the job of correcting the first month's entries in RESIDENT PHYSICIAN'S *Mediquiz® Contest. To encourage those of you who have completed and returned the August and September answer cards, a sampling of the early returns, when corrected, showed that more than ten percent received perfect scores! So stay with it. You have an excellent chance of winning one of the 120 prizes!*

This month's questions begin on page 146.

six sizes
a thousand and one uses

The wide range of sizes of 'VASELINE' STERILE PETROLATUM GAUZE U.S.P. gives it a thousand and one uses in the hospital and the office treatment room. As a pressure dressing in surgery . . . an occlusive dressing in burns . . . an emollient dressing on dry and nonacute skin lesions . . . a packing in nose, eye, and ear procedures . . . here is a dressing convenient to use and of guaranteed, sealed-in sterility.

Provided in a Range of Sizes for Every Indicated Need

in disposable plastic tubes • 1/2" x 72" selvage-edged packing
in heat-sealed foil envelopes • 1" x 36" strip . . . 3" x 3" pad, opening to 3" x 9" strip . . . 3" x 18" strip . . . 3" x 36" strip . . . 6" x 36" strip

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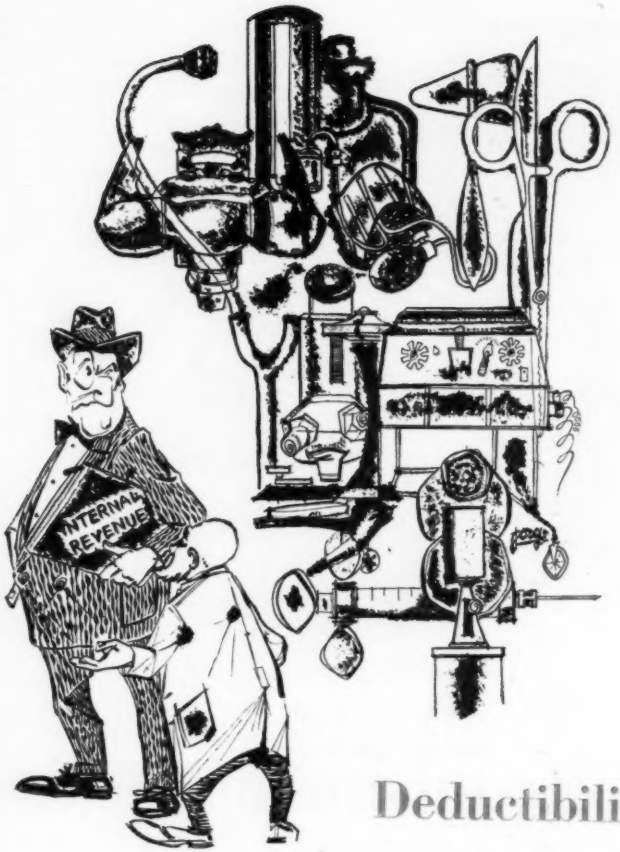

Deductibility of Educational Expenses

Joseph Arkin, C.P.A.

Under certain conditions the practicing physician can deduct expenses connected with postgraduate training. Presented here is a concise explanation of what training expenses the doctor can or cannot deduct.

For many years a fight has raged between taxpayers and the tax collector over the deductibility of educational expenditures.

Foremost have been the efforts of school teachers to force the Commissioner of Internal Revenue to liberalize his regulations and interpretations of the Internal Revenue Code.

With each successful case (Lillie Mae Green in the Tax Court, Clark S. Marlor in the Circuit Court of Appeals*) the door was opened for a more realistic treatment of expenses incurred for education.

Recently a new set of regulations was issued for salaried individuals and for self-employed persons. They provide that expenditures made by a taxpayer for his education are deductible if they are for education (including research activities) undertaken primarily for the purpose of:

- maintaining or improving skills required by the taxpayer in his employment, trade or business
- meeting the express requirements of a taxpayer's employer, or the requirements of applicable law or regulations, imposed as a condition to the retention by the taxpayer of his salary, status or employment.

Expenditures made by a taxpayer for his education are *not deductible if they are for education undertaken primarily for the purpose of obtaining a new position or substantial advancement in position, or primarily for the purpose of fulfilling the general educatonal aims or other personal purposes of the taxpayer.*

* Robert S. Green and Lillie Mae Green 28 TC 135 (1957); Clark S. Marlor 27 TC 624 (1957), sustained on appeal in the 2nd Circuit, Marlor v. Commissioner.

Application

How do these new rules apply to the self-employed physician?

Dr. Smith, a general practitioner, takes a course of study *in order to become a specialist in pediatrics*. Dr. Jones, also a GP takes a two-week course reviewing developments in several specialized fields, including pediatrics, *for the purpose of carrying on his general practice*.

Dr. Smith's expenses are *not* deductible because the course of study qualifies him for a specialty within his profession. Dr. Jones' expenses for his education and any transportation, meals, and lodging while away from home *are* deductible because they were undertaken primarily to *improve* skills required by him in his profession.

Example

The course taken by Dr. Jones is offered in a city which is 500 miles away from his home. His primary purpose in going to this city is to take the course, but he also takes a side trip to another city, 50 miles away, for one day, to do some sightseeing and to visit friends.

His transportation expenses to the city where the course is given are deductible but his expenses for the "side tour" are not. Dr. Jones must also allocate his expenses for meals and lodging while away from home between his educational pursuits and his personal activities. Expenses incurred in sightseeing and visiting friends are personal and are not deductible to any extent.

Different purpose

Let's change the facts in the above case and see what happens. Now Dr. Jones' primary purpose in going to the city where the course is given is to take a vacation. This is indicated by the fact that he spends only two weeks attending the course and devotes five weeks entirely to personal activities.

Now *none* of Dr. Jones' transportation expenses are deductible. Nor can he deduct expenses for meals and lodging while on his "five-week vacation." He can deduct only the meal and lodging expenses incurred during the two weeks of the course.

These rules and regulations are retroactive to the years 1954, 1955, 1956 and 1957. Claims for refund for educational expenditures incurred during these years but not deducted may be filed on Form 843 or by filing amended returns on Form 1040.

Contest Rules and Prizes

1. Contest will consist of Mediquiz®-type questions to be published in the August, September, October, November and December issues of RESIDENT PHYSICIAN. Contestant must answer and return all five sheets on or before required dates (as indicated in Rule 4) to be eligible.

2. Contestants must have resident physician or intern status and be in good standing in programs currently approved by the American Medical Association and by the American Specialty Board applicable to their specialty. House Officers whose residency or internship status is terminated for any reason *prior* to November 1, 1960, are *not* eligible. Employees of RESIDENT PHYSICIAN or members of their families are not eligible to enter this contest.

3. Each contestant is limited to a single entry each month.

4. *Each monthly entry must be postmarked not later than the 10th of the month following the month of publication, except for contest entries from Canal Zone, Hawaii and Puerto Rico which must be postmarked not later than the 15th of the month following the month of publication.* Each answer sheet must be received by RESIDENT PHYSICIAN by the 30th of the month following the month of publication. Each entry must be mailed

to: MEDIQUIZ® CONTEST, RESIDENT PHYSICIAN, P.O. Box 1960, Manhasset, New York.

5. Questions will be derived by the Editor solely from current issues of medical journals which should be in every approved hospital's medical library. Only journal issues published after March 1960 will be used as source material for questions.

6. Winners will be determined on the basis of the highest total of correct answers.

7. In the event of ties, and at the discretion of the judges, an elimination contest, approved by the judges, will be conducted among those involved in the ties —and will determine the final winners. Final winners will be notified as soon as practicable following the decision of the judges. The decision of the judges will be final.

8. Liability for any taxes that may be imposed on prizes is the sole responsibility of the prize winner.

9. No entry submitted for this contest will be acknowledged or returned nor will any correspondence be entered into with contestants concerning the contest. All entries become the property of THE RESIDENT, INC.

10. Answers will be published in RESIDENT PHYSICIAN after the close of the contest.

FIRST PRIZE:

TWO WEEKS IN EUROPE FOR 2 VIA B·O·A·C

All expenses paid. Deluxe accommodations. BOAC's 707 Intercontinental will jet you to London in just over 6 hours. From there you will visit leading medical institutions and meet some of Europe's foremost physicians in your specialty.

SECOND PRIZE:

NEW BRITISH TRIUMPH SEDAN

The new Triumph/Herald sets a new standard for safety, economy and ease of handling. Four-wheel independent suspension—over-sized brakes—steering column telescopes in an emergency—never needs an ordinary grease job—up to 40 miles per gallon.

THIRD PRIZE: **$1,000**

FOURTH PRIZE: **$500**

FIFTH PRIZE: **$250**

Plus five prizes of $100, ten prizes of $50 and 100 prizes of $25 . . . for a total of 120 prizes!

Mediquiz® Contest Questions

Here is the third set of questions in our $10,000 prize contest for residents and interns! Remember to return the answer card on time!

1. The white limbus girdle was first described by:

A) Cushing.
B) Lindau.
C) Helmholz.
D) Vogt.
E) Osler.

2. Glaucomatocyclitic arises have:

A) Synechias.
B) No keratic precipitates.
C) Marked blurring of vision.
D) Unilateral dilated pupil.
E) Severe symptoms with medium tension.

3. Large laryngeal saccules occur:

A) Only in Caucasians.
B) Only in Negroes.
C) Never in women.
D) Twice as often in Negroes.
E) More frequently in males.

Mediquiz Contest Answer Sheet

Place "X" in correct box in ink

	A	B	C	D	E
1	☐	☐	☐	☐	☐
2	☐	☐	☐	☐	☐
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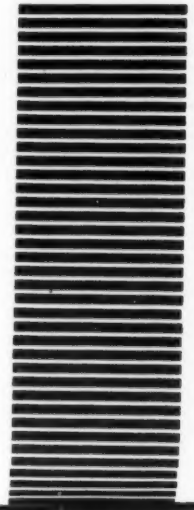

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4. Lung compliance is decreased by radiation. The change is less severe if:

A) O_2 tension is high during irradiation.

B) Large doses of cortisone are given phophylactically.

C) CO_2 is administered during irradiation.

D) O_2 tension is purposely kept low during irradiation.

E) Adrenal function is depressed.

5. For the existential analysts the *future* is regarded:

A) As unimportant.

B) As the dominant mode of time.

C) As an outmoded concept.

D) As less important than "having been."

E) As a peripheral concept.

6. The clearance of bromsulphalein is directly related to:

A) The arterial hepatic circulation.

B) The functioning of the bile duct cells supplied by the peribiliary arterial plexus.

C) The factors which determine the turnover rate of the blood pool.

D) Temperature of body.

E) The rate of mixing.

7. Type VIII pneumococcal pneumonia:

A) Was included with Type III pneumonias.

B) Constitutes three percent of all pneumonias.

C) Untreated, had a death rate of fifteen percent.

D) Had a bacteremia rate of sixteen percent.

E) Terminates in seventy-four percent of patients by crisis.

8. The average normal velocity of sperm is:

A) 0.05-0.1 mm. per second.

B) 0.15-0.2 mm. per second.

C) 0.4-0.6 mm. per second.

D) 0.7-1.0 mm. per second.

E) 1.2-1.5 mm. per second.

9. Among the effects of vagal blockage on respiratory work during water immersion hypothermia in anesthetized dogs were:

A) An increase of 68 percent of respiratory work.

B) An increase in pulmonary ventilation.

C) An increase in respiratory frequency.

D) A reduction of 35 percent in respiratory rate.

E) No change in the respiratory work.

10. The morphological differences between normal airways and airways in severe emphysema are most notable:

A) In the bronchioles.

B) In small bronchi.

C) In medium-sized bronchi.

D) In the large bronchi.

E) In the trachea.

11. Hereditary methemoglobinemia occurs frequently in certain families of:

A) Laplanders.

B) Dyaks.

C) Somalis.

D) Athabascans.

E) Gurkas.

12. In human thoracic duct lymph, dietary fat:

A) Largely influenced the fatty acid distribution of triglycerides.

B) Influenced considerably the free fatty acids.

C) Did not affect the cholesterol esters.

D) Definitely influenced the pattern of phospholipid fatty acids.

E) Markedly influenced distribution of lymph lecithins.

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13. In studies of E. coli isolated from the vagina it was noted:

A) That a direct relationship was found between personal hygiene and isolation of organisms.

B) That the mucinase test gave valuable information.

C) That Groups 3, 8, and 10 were most frequently isolated.

D) That there was little association with Tr. vaginalis.

E) Vaginal pH of 4.0 to 4.9 favored growth of E. coli.

14. A study of blood donors indicated that:

A) Roughly three-quarters were paid donors.

B) Paid donors are unlikely to be unemployed.

C) Eighty percent of paid donors have given blood at least three times previously.

D) Replacement donors are a more reliable group.

E) Replacement donors are to be preferred.

15. In a study of sarcoidosis it was noted that:

A) The ten year survival rate was 49.8 percent.

B) About one-third of the patients recovered completely.

C) The incidence of erythema nodosum was slightly greater than that reported in England.

D) The prognosis was better in Negroes than in whites.

E) Clearing of mediastinal adenopathy occurred more often than has been reported from Sweden.

16. John Farquhar Fulton was a:

A) Professor of the History of Medicine.

B) Professor of Neuro-physiology.

C) Professor of Aero-medical Research.

D) Professor of Neuro-surgery.

E) Professor of the History of Science.

17. Norwegian scabies is characterized by:

A) Extreme itching.

B) Few mites.

C) A greatly thickened horny layer.

D) Less contagiousness than scabies.

E) Its infrequent occurrence in neurologic or mental patients.

18. In the nephrotic syndrome the following point has been noted:

A) Smudging of the epithelial foot processes in the glomeruli.

B) High serum complement.

C) A negative tanned red-cell hemaglutinin test.

D) Qualitative abnormalities of the plasma protein.

E) Fluorescein-labeled antisera are not absorbed *in-vitro* by the glomerular basement membrane of nephrotics.

19. Total direct mail advertising to a target physician in the year 1959-60 numbered:

A) 6341.

B) 4976.

C) 5845.

D) 5215.

E) 4319.

20. In Maple Syrup urine disease:

A) Convulsions occur frequently.

B) Clinical symptoms begin about 30 days after birth.

C) The Moro reflex is present.

D) The metabolism of branched - chain amino acids is involved.

E) Keto-analogues of certain amino acids do not accumulate excessively.

MEDICAL PRACTICE

A Stress Situation

Maurice Levine, M.D.

The author reports informally on his observations of physicians, and on a common problem of economic and psychologic adjustment.

The Editor realizes that in accepting this paper for publication in RESIDENT PHYSICIAN, *he has departed, in a sense, from the current policy of not accepting clinical or scientific papers for this journal. However, Dr. Levine has used clinical syndromes observed by him in a number of physicians as the starting point for a discussion of socio-economic problems in medical practice and has done so in a provocative fashion. The focus of this journal is on the physician himself; hence, the paper is being published. And, as Dr. Levine points out, the solutions which he suggests for relieving anxiety and tension are his own, are tentative, and certainly are subject to change as time goes on.*

In the past 25 years, the author has had a number of calls from physicians in practice, or from their wives, or from the physicians' physicians, saying that it was urgent that the doctor be seen that day, that he seemed to be under such great stress and tension that he or the member of the family was afraid that he would develop a serious disorder, either physiologic or psychologic.

Frequently, under such circumstances, the author would hear a story that sounded as if the physician might be severely neurotic. Often the doctor would say with conviction that he could not take it any longer, that he was tense and jittery and fatigued, that he was sure that he was developing some serious physical disease, that he found himself unable to face the idea of going to his office that day or to see his hospital patients.

Or he would say that he could not think clearly, that he felt under such tension that he was considering giving up medical practice, that he had become irritable with his wife and children and was feeling exceedingly guilty about his critical comments to them, that he was spending his time trying to find the faults of his family in order to justify his irritability, or that

The author is Professor and Director, Department of Psychiatry, College of Medicine, University of Cincinnati.

he had taken his own blood pressure and found that it was elevated, although an hour later it was down to normal again, and on and on. . . .

Conflicts

In medical work with patients who have such complaints, many psychiatrists and many internists are convinced that usually the most important issues are in the area of psychodynamics, i.e., the emotional conflicts which are raging at the moment, and which have led to the development of tension and anxiety and in some patients to the development of physiologic or psychologic symptoms.

So with such physician-patients, one would look first for manifestations of emotional problems, of such typical conflicts as hostility versus affection, as passivity versus independence, as sexual impulses versus guilt, or as ambition versus modesty.

But most psychiatrists these days have schooled themselves not to be single-tracked in their emphasis on inner conflict; they know that other issues are important as well. Certainly in complex problems, etiologic factors often are multiple.

So, with the group of doctors mentioned above, the author found that there were some who did have a fair amount of inner conflict and neurotic problems, which could explain some of the manifestations which led to the urgent phone calls. Further, the author found some in whom neurotic problems had made them vulnerable to a variety of pressures and stresses, including those of medical practice.

But the striking thing was that the clinical picture occurred also in individuals whom one can call relatively normal and mature. These terms are used in a very broad sense, of course, since normality and maturity are best regarded not as a fine line of perfection but rather as a broad fairway in which many varieties of adjustment are to be called normal and mature.

Many of these physicians were men of moderate or of great strength of personality, and their human conflicts were only of average intensity, or less. With many of them, it was impossible to conclude that their end-points of tension and anxiety were due primarily to inner conflicts or neurotic difficulties.

In general, when a number of patients have similar symptoms and yet cover the spectrum from the one end of the relatively normal and mature to the other end

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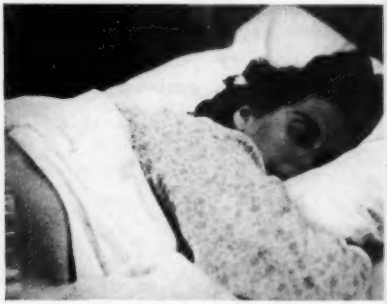


She sleeps peacefully... all through the night. (Meprospan samples and literature available from Wallace Laboratories, Cranbury, N. J.)

of the seriously neurotic, one hesitates to accept an explanation which gives greatest weight to inner conflict. Rather one looks for an explanation which emphasizes somatic factors or external pressures, or which emphasizes some combination of these factors and inner conflict.

In such cases, one turns to anatomic or physiologic factors, i.e., to some primarily somatic disorder, or one turns to the field of social forces, i.e., more specifically, to an understanding of the external pressures in the life of the group, pressures which seem to be affecting both the more normal and the more neurotic members of the group.

With the group of physicians mentioned above, adequate somatic studies had revealed no primary physical disease of importance and no somatic etiologic factors of importance. Consequently, it was necessary to look for external stress factors which in part might be pathogenic.

In this connection, it is urgent that physicians know that all human beings, even the most mature, have their breaking points. Of the men of the British Army, rescued across the Channel after the disaster at Dunkirk, a high percentage had a rather serious psychiatric disturbance which in a way resembled a Parkinsonism, but which in most of the men lasted only two or three days. This was the flower of the British Army, men who were relatively normal and mature. The Dunkirk experience was beyond the capacity of most men to accept without at least a temporary disturbance of the whole personality.

Similarly, with a fair number of the doctors about whom the author was called, exploratory interviews led to the conviction that the stress of medical practice played an important role in etiology.

Information

And the author has had two important supporting sources of information. One is that over the past 20 years he has given a variety of seminars on the use of psychiatric material in general medical practice. Several hundred physicians have participated. Some of the participants in the seminars were stimulated by the subject matter of the seminars to talk frankly and freely, when they were alone with the author, about their own personal problems in the practice of medicine, without thinking of such discussions as therapy.

The third source of information has been this, that a number of physicians who have read what the author had published about psychotherapy in medical practice have talked to him, in meetings and in casual contacts, not only about the problems of their patients but also with complete frankness about their own lives and problems as physicians.

Anxiety

Out of such professional experience with physicians, many of whom were not to be thought of as neurotic, and out of such casual but revealing contacts with large numbers of physicians, many of whom also were not neurotic, there has crystallized the generalization that many physicians labor under a heavy load of external stress and a heavy inner load of anxiety. Many have an ever-present anxiety that they are not doing as good a job as they should be doing.

They have a concurrent anxiety that they are not keeping up with the literature to a sufficient degree. There often is a deep concern that they miss matters of importance in individual patients, due to the pressure of work.

There is the frequent concern that some of their techniques are out-of-date. Often one of the defenses against this concern is to rely on the detail men of the pharmaceutical houses or on other positive but inadequate defenses.

Financial

Still further, one of the major sources of difficulty in medical practice is the question of anxiety over financial matters. In some instances, there is concern over the question of building a practice which will provide adequate financial stability. In others there is the problem of the physician's status in the community, his gradually increasing social prestige and the increased expenditures that go with upward social mobility. There is the constant problem of the need to make payments on a house and to keep up with life insurance and disability insurance.

It is the author's impression that there is something wrong for a certain number of physicians in the present pattern of medical practice in America and he would like to make a suggestion which seems constructive. But this last sentence immediately raises the specter that some readers now may think that the author wants to make a com-

ment about politics or economics or the role of Government in private medical practice. He does not. He is not an expert on the organization of medical practice in America as contrasted with practice in Great Britain or other areas. He knows a fair amount about such problems, as do most physicians, and his primary inclination is to say that he hopes very deeply indeed that nothing would ever develop in this country that would force a major change in the private practice of American physicians.

Patterns

But the fear of being regarded as recommending some kind of political change must not deter one from making a suggestion about medical practice. The author is not recommending a change in governmental activity. He is simply recommending that doctors in their individual relations with individual patients and families organize their patterns somewhat differently, or at least that some doctors do so.

The author must say also that he has not taken the time to survey the literature on this topic and so does not regard this as a scientific paper. He regards it as a kind of free-wheeling essay based on medical experience, and essentially is asking that some serious students of this field, resident physicians who later will become leaders in the medical community, consider the possibility of studying it from the angle that is suggested.

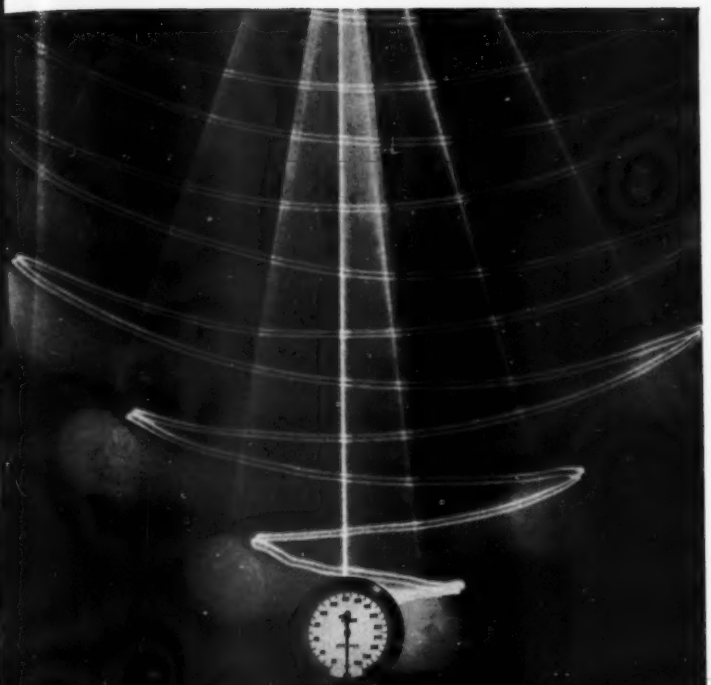
Further, the author is sure that the suggestion in good part is not original although it differs in specific ways from comparable suggestions.

Perhaps the chief contribution of the present essay is in linking a practical suggestion with the author's observations of doctors, i.e., with what he has seen of the personal reactions of a fairly large number of physicians to the present circumstances of medical practice in America.

Large practice

The basic observation is that many physicians engage in a type of medical practice that is seriously stressful, and that tension and anxiety are hidden issues in the lives of many doctors. It was mentioned above that some of this anxiety centers around the question of a reliable income. Unfortunately, one of the most frequent defenses against such anxiety is the assumption of a case load which is too large.

Anxiety that patients will not return and instead will go to



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other physicians raises the specter of having too small a practice, and so the defense emerges of having additional patients in reserve, of having a very large case load which can stand the loss of some patients.

During some days or weeks of the year the size of the practice is not of great importance. But in other periods of the year the load of work of such a physician, who is defending himself against anxiety by having a very large case load, becomes excessive, at times seriously so. Under such circumstances the author has heard many physicians express anxiety that they might be too rushed to do a good job.

Obviously, there are many changes which might be suggested to remedy what is in some respects a most difficult situation. In this paper only one specific suggestion will be mentioned, viz., that a system be adopted in individual private medical practice which would be comparable to the retainer fee system in law practice. This would apply to those physicians who take on a long-term responsibility for patients, e.g., the general practitioner or the internist or the pediatrician, and probably would not apply to surgical practice and to many other fields.

There are comparable plans for a retainer fee or its equivalent in group practice and in certain insurance programs. The suggestion of this essay is that a well-planned retainer fee arrangement is applicable to individual private medical practice, and might solve many of the serious problems of independent practice. Some individual physicians have used some form of a retainer fee arrangement, but the author knows of none using it in the form suggested here.

And no such system of individual retainer fees has been sponsored or encouraged by the medical community.

This last item is of importance, since it would be of great value if such a system would become a frequent pattern of private practice in American medicine. If this would happen, no single physician would be regarded as being too interested in financial arrangements.

Next Month: *"Retainer Fee: An Answer to Medical Practice Stress." Dr. Levine discusses his suggestion of a retainer fee and how it might be employed to relieve physicians of the stress of private practice.*

Great Issues of Conscience in Modern Medicine

THE DARTMOUTH CONVOCATION

Resident Physician's editor attended the recent Dartmouth meeting. Here is his first report on this important conference.

Shortly after John Sloan Dickey became president of Dartmouth College about thirteen years ago, the course in *The Great Issues* was inaugurated and was made a required course for all senior students (approximately 650 men).

This course, which is admirable in its conception, has three main educational aims.

- To confront senior Dartmouth students with the important issues of our time with the intention and hope, that by doing so, a heightened sense of public-mindedness and a broader sense of the responsibilities of an educated man will be developed in these students.
- By requiring them to use the sources of information which will be commonly available to them in later life, the course helps to make the transition from classroom instruction to the more informal lifelong education in which the intelligent adult citizen engages.
- By providing a common intellectual experience for all seniors, the course aims to foster an interchange of ideas on the common problems facing all citizens, thereby providing a balance for the specialized work of the last

two years of college.

Obviously, it is impossible to define what constitutes a "great" issue in simple terms. But such an issue has certain characteristics by which it may be identified. It does not yield to a simple answer. It is something about which sound and reasonable men and women can, and have disagreed vehemently. Various answers have been proposed, none of which is universally satisfactory. The disagreements arise not from the nature of the facts, but from interpretations of the facts influenced by ethical and moral concepts. Uncommonly are "great" issues current events. Generally, they have long histories, but they would not constitute themselves as "great" unless they were of notable importance in the present time. Finally, as unsolved problems, they will probably remain with us for some time.

A "great" issue has a moral and ethical core, historical depth, meaning for the present, and a probable projection into the future.

Record of ideas

In the actual course work, the issues which are studied and discussed vary from year to year. Part of the course is devoted to domestic issues, part to international issues, and part to the problems of cultural, moral, ethical and religious values. Once a week during the academic year, a visiting lecturer speaks on an issue with which he is associated by special knowledge and practical experience. These speakers are drawn from all over the world and from many callings.

On the day following his discussion, the speaker meets the class for an active question period. Each senior keeps a personal record of his reactions to the issues which are discussed, thereby developing his own ideas and points of view.

Interestingly enough, the major text in the course is the *New York Times* which must be read daily throughout the academic year. In addition, a wide variety of publications are made available to the students. Each member of the course must engage in a "project" from which a lengthy paper emerges which deals with his thoughts on and evaluation of his chosen subject.

Out of this course developed the idea of holding occasional convocations on "Great Issues." The first Convocation on "Great Issues" was held in 1957, and its discussions were directed to the problems of public policy

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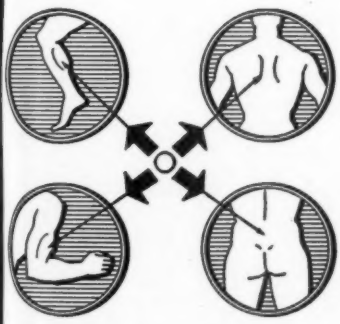

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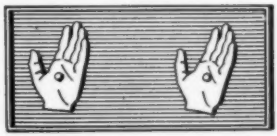

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in the Anglo-Canadian-American community.

The present Convocation was arranged to be held at the time of the laying of the cornerstone of the new Medical Science Building. The Dartmouth Medical School was founded in 1797, and until 1914 was a four-year school. In thinking of the role of the Dartmouth Medical School in the future, much thought has been given and many consultations have been held relative to the question of whether or not it should return to a four-year status. The decision was reached to remain a two-year school, which in your Editor's opinion, was a wise one.

Dartmouth's role

To increase the curriculum to four years would entail an initial need of $40 million or more. This would be but the beginning of financial demands. Furthermore, the four-year medical schools in this country currently face a deficit of several hundred students, due to attrition, at the end of the second year.

Dartmouth is aiming to provide, as far as is humanly possible, pre-clinical education of the highest type. This effort will not only be welcomed by the four-year schools, but also will be watched with great educational interest, to see what a pre-clinical faculty, resident in a highly academic environment, and free from the distractions and frustrations which arise so frequently in such a group from its contact with increasingly omnivorous clinical faculties, can develop in the way of new approaches in the teaching of the basic medical sciences.

Convocation and members

The Convocation, held on September 8, 9, and 10, was moderated by Rene J. Dubos of the Rockefeller Institute. The convocators were:

Brock Chisholm, director-general, World Health Organization, 1948-53.

Mahomedali C. Chagla, lawyer and Indian Ambassador to the U.S.A. and Mexico.

Ward Darley, executive director, Association of American Medical Colleges.

Ralph Gerard, professor of neurophysiology, Mental Health Research Institute, University of Michigan.

Aldous Huxley, author, essayist, and philosopher.

George B. Kistiakowsky, special assistant to President Eisenhower for Science and Technology, and professor of physical

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1. Cleia, N. W.: Pediat. Clin. North America, Nov., 1954, pp. 949-962.

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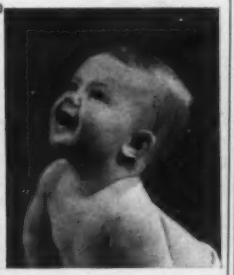

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chemistry, Massachusetts Institute of Technology.

Walsh McDermott, professor of public health and preventive medicine, Cornell University Medical School.

H. J. Muller, Nobel laureate, geneticist and distinguished service professor of zoology, University of Indiana.

Wilder G. Penfield, director, Montreal Neurological Institute.

Sir George Pickering, Regius professor of medicine, Oxford University.

Sandor Rado, president, New York School of Psychiatry.

Sir Charles (C.P.) Snow, scientist, author, and philosopher.

Warren Weaver, vice president, Alfred P. Sloan Foundation.

Background

Can scientific civilization and its leaders ignore the ethical and emotional values that men prize above life itself? Recent advances in physical and medical sciences have enabled man to gain more and more control of his own destiny. These controls have created important moral questions, especially for the medical profession which utilizes these advances, because certain by-products of this new knowledge are harmful and even lethal. It is fitting that the Dartmouth Medical School, now revitalizing its program to expand its contribution to medical knowledge, and Dartmouth College, dedicated to the partnership of 'conscience and competence' should sponsor a convocation devoted to a definition of these questions and discussion of their possible solution."

Opening Assembly

The Convocation was opened promptly at 8:30 PM. (One of the extraordinary things about this Convocation was that it was kept exactly to its time schedule.) The first speaker was John Sloan Dickey, president of Dartmouth. After welcoming the convocators and explaining the history and purpose of the Convocations on "Great Issues," President Dickey pointed out that "any man who aspires to minister greatly to any human ill or need, must be more than a merely skilled professional. Liberal learning is that transcending more which, however it is acquired, gives all callings the possibility of greatness. On this campus liberal learning and professional medical studies have shared a propinquity of purpose as well as of place for 163 years."

—Continued on page 172

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F PREMENSTRUAL TENSION

Science, moral value

President Dickey then introduced Dean S. Marsh Tenney of the Medical School who spoke briefly on "Medical Science and Moral Value." He pointed out that "medicine was the first profession to join firmly onto a natural philosophy but . . . has only recently progressed . . . into an era deeply concerned with quantity and circumstance. Though its foundations have become more rational, its practice — that supreme welding of science and humanism — is said to have become more remote and indifferent to human values; . . . medicine has been forced to remind itself that human factors are often determinant."

He went on to discuss the difference between what science is and what science does, and stated that " 'science continues to be what it was in Greece, conceptual thought but mediating between consciousness and nature.' Science tells us what we can do — never what we should. While science itself cannot be immoral, neither can it establish a morality. Its objective posture precludes competence in the realm of values."

Dr. Tenney said that Loren Eisely has commented on this problem as follows: "The Western scientific community, great though it is, has not concerned itself enough with the creation of better human beings, nor with self-discipline. It has concentrated instead on things, and assumed that the good life would follow. Therefore, it hungers for infinity. Outward in that infinity lies the Garden the sixteenth century voyagers did not find. We no longer call it the Garden. We are sophisticated men. We call it, vaguely, progress."

What kind of survival

Dean Tenney went on to say that the purpose of the Convocation "was to examine the issues of conscience in that 'progress.' The objective is not simply the question of survival or extinction of man. But is what *kind* of survival? A future of what nature?"

Dean Tenney then introduced the speaker of the evening, Dr. Rene J. Dubos, professor and member of the University of The Rockefeller Institute, who spoke on "Science and Conscience in Modern Medicine." Dr. Dubos defined health as "a physiological state fairly free of pain, and permitting the individual to function adequately . . . in the social environment of which he is a part."

(Other definitions of health were proposed during the Convocation, thereby indicating that we are not certain of what health really is.) He noted that "the greatest difficulties to the achievement of health will not come from a lack of scientific knowledge, but rather from social limitations which create great problems for medical conscience."

Social, economic problems

Obviously, there are areas in medicine concerning which we know little, but if we knew all the answers, scientifically speaking, we still might have major disease problems because of poor social environments. As the speaker pointed out, with tuberculosis, malnutrition, parasitic and enteric diseases, malaria, etc., little real "progress can be made until sanitation and the general standard of living can be raised to a decent level." In most of the so-called underprivileged countries, the problems are not medical but rather social and economic. We could eliminate or prevent an enormous amount of disease in our world, if our collective social and economic consciences gave us the green light.

For example, Dr. Dubos took the problems of pollutants of air, water, food and soil. Here the problems are well defined *and if one wants to pay for them, the solutions are at hand.* But as Dr. Dubos pointed out "it is instructive to read Congressional Hearings . . . on environmental health problems. In answer to a plea for enlarged Federal support to the program . . . Representative John E. Fogarty . . . pointed out to Surgeon General Leroy Burney that 'environmental health doesn't seem to ring a bell with people, to the average person, if you start talking environmental health, they are just not interested.' "

There can be little doubting this attitude, even though as pointed out later in the Convocation that between the population explosion and the rise in the pollutants in our environment, there will be created for our grandchildren and their children, "the worst time of troubles ever faced by the human race." We just don't seem to be able to arouse public opinion, which unfortunately almost always lives in the present or immediate future, to take a long range view of what we have to face. Instead we have to live with such nonsense as was witnessed a year ago, when, as a result of a desire for publicity, or because of political ambition, or because of hysteria, or of panicked unreasoning advice by

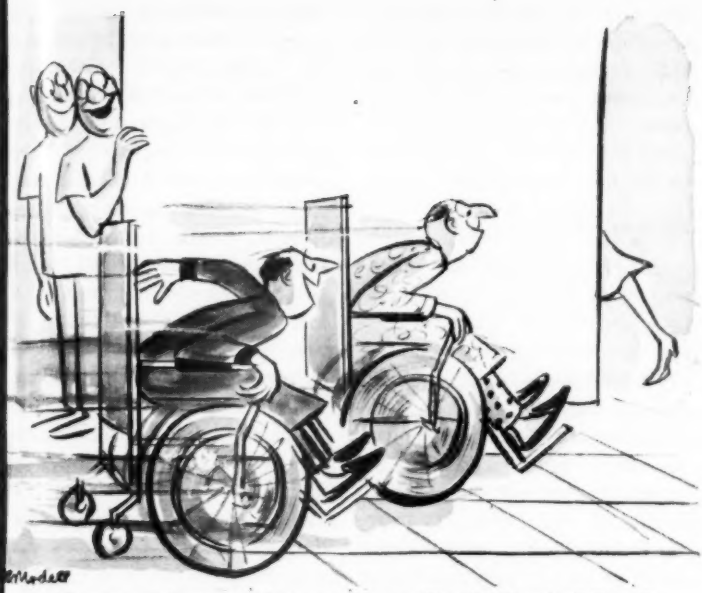
his inferiors (I do not specify which), the Secretary of H.E.W. interdicted the sale of cranberries, because allegedly they had been contaminated with a carcinogenic agent (carcinogenic for odd experimental animals), thus causing millions of dollars of loss in money, and heaven knows how much irreparable damage to the cranberry industry. As Dr. Dubos pointed out "the recent furor is almost a caricature." He goes on to say "it seems to me, society will be willing to take a few chances for the sake of lower costs of food production."

Emphasis

Another factor affecting the social choices which face our people today in determining the direction of medical research is the shortage of scientific personnel. Today, there is little doubt but that vaccines could be made for most viruses. But costs and shortage of personnel dictate that a social choice must be made as to the varieties of infection for which protection is most desirable for the individual and the group. As Dr. Dubos queried, "should emphasis be placed on diseases which are fatal or crippling, but affect only small numbers of individuals? Or should priority be given to ailments of the upper respiratory tract, rather mild and self-limited, but of great economic importance because they affect a large percentage of the population and disrupt industrial production and other national activities?"

It is of interest, and has been for many years to your Editor, that the social choice carefully developed by masters of public relations, by astute appeals to the emotional side of the American people, and backed by donations running into the many millions of dollars has been made in favor of research and production of vaccines for a disease which on the whole is of little importance except to the individual who has it, or his family. Poliomyelitis obviously is the disease we are talking about.

In the same vein, many years ago, Dr. Wade Hampton Frost stated emphatically that if all patients who had open tuberculosis could be quarantined, tuberculosis would disappear in one generation. As Dr. Dubos reported, "it would be practicable to prevent new tuberculosis infection from occurring in this country by administering chemotherapy to spreaders of bacilli and thus render them non-infectious . . . the scientific techniques . . . are available . . . the present com-



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munity has to decide whether it is willing to undertake the huge and expensive task of tuberculosis eradication from which it will obtain no appreciable value." (The "dividends" would accrue to the next generation.)

Prolonging life

The speaker next took up the problems of saving or prolonging lives and by this action increasing the burden on the community. He pointed out that the "ethical difficulties [for the physician and society] are bound to become larger" because of the increasing ability of the physician to prolong "biological life in individuals who cannot derive either profit or pleasure from existence, and whose survival creates painful burdens for the community."

He goes on to point out that we are constantly increasing the survival rate of those "whose very survival is dependent on exacting medical supervision."

As more and more persons who need medical supervision accumulate, and more and more specialized medical personnel are withdrawn from the general pool to take care of them, there can be little doubting that "some aspect of medical ethics will have to be reconsidered in the harsh light of economics."

In concluding his presentation Dr. Dubos stated, "Although I have had these views in mind for a number of years, and have expressed some in writing, I feel embarrassed at discussing them in public. The reason is that despite my efforts, I probably seem to take attitudes which are in reality profoundly distasteful to me. First is the fact that I appear to deal with human life as if it were merchandise, the production and maintenance of which must be evaluated against economic cost and social conveniences; whereas, I believe that human life has spiritual values that far transcend material considerations. I seem to be pessimistic, or at least skeptical, as to the ability of mankind to overcome the dangers that prosperity and social advances unquestionably bring in their train; and yet I know that mankind has experienced many situations far more difficult than present difficulties, and has taken them in its stride. And finally, I seem to foster an anti-intellectual attitude by expressing some doubts as to the effectiveness of certain scientific pursuits, although I cannot possibly envisage retreat from reason and from science."

"Let me conclude by stating

once more my conviction that experimental and clinical science can solve the biological aspects of almost any medical problem, but that in practically all cases, the solution will be very costly money-wise and especially in terms of specialized talents. While it is possible in theory to deal with all new health problems that will be created by our rapidly changing social and technological order, many possible measures of control will have to be made by society as a whole, because they involve value judgments.

More and more, medical science will need to be integrated into social conscience."

Dr. Dubos' address was enthusiastically received by an audience which occupied practically every available space in that area of Alumni Gymnasium which was used for the sessions of the Convocation.

Following this session, a reception was held on the lawn in front of the gymnasium, and it was very pleasant during that warm, late summer evening to greet old friends and to make new ones.

Next morning, after a very excellent breakfast at Thayer Hall (it must be said that every meal which we had in this college dining room was very tasty), and a short walk around the campus, we all trooped back to Alumni Gymnasium for the first panel discussion on "The Issues of Man and His Environment."

RESIDENT PHYSICIAN will continue this Convocation report next month: "Man and His Environment."

Preface to Osler's Comment

In his lifetime Dr. William Osler achieved the reputation of greatest doctor of his day. But he was not only an outstanding physician, he was a great teacher, philosopher, scholar and human being.

Osler was born on July 12, 1849, in Bond Head, Ontario, Canada. His parents had migrated from Cornwall, England. Young William intended at first to follow his father's career as a clergyman but turned instead to medicine. He studied at Trinity College School of Medicine in Toronto, then at the McGill University Medical School in Montreal, where he received his M.D. degree in 1872.

After studies abroad in London, Berlin and Vienna, he returned, in 1874, as professor in physiology and pathology at McGill. Then, from 1884 to 1889, he held the chair in clinical medicine at the University of Pennsylvania, during which time he served briefly as Gulstonian lecturer at the Royal College of Physicians in London and Cartwright lecturer in the College of Physicians and Surgeons in New York. From 1889 to 1904, his most famous years, he was professor of medicine at Johns Hopkins University, resigning to become, in 1905, regius professor of medicine at the University of Oxford.

Osler in 1892 married the widow of the distinguished Philadelphia


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physician, Dr. Samuel W. Gross. Their first child died shortly after birth; their second was killed in action in World War I.

He was knighted in 1911 and died on December 29, 1919, after an unsuccessful operation for empyema and a pulmonary abscess.

Writing

Dr. Osler's interests were universal and his energies prodigious. He wrote 1,195 books and papers. His master clinical work was *The Principles and Practice of Medicine,* first published in 1892 and last published, in a 16th edition, in 1947. From 1907 to 1910 he edited, with Thomas McCrae, *Modern Medicine,* in 7 volumes. This appeared in two more editions, its last edited by Thomas McCrae and Elmer H. Funk in 1925-28. Two of Osler's best-known medical monographs were *Cerebral Palsies in Children* (1889) and *Chorea and Choreiform Affections* (1894).

Research

Dr. Osler was a noted medical authority, carrying out original research in diseases of the spleen, blood and heart and, in the field of public health, working actively against typhoid, malaria, tuberculosis and the conditions responsible for infant mortality. He was 22 when he wrote up his first case history for a medical journal, 25 when he earned his first physician's fee, 50¢, for treatment of a "speck in cornea."

Kelly's Encyclopedia of Medical Sources lists five Osler eponyms, best known of them the Rendu-Osler-Weber disease of telangiectases of the skin, and chronic cyanosis with polycythemia, elsewhere identified as Vaquez-Osler disease.

Teaching

As teacher at McGill, Pennsylvania, Hopkins and Oxford, Osler made possibly his greatest impact. His most famous protege was Dr. Harvey Cushing, the father of modern neurosurgery, whose biography of Osler in 1925 won a Pulitzer Prize. The list of other eminent physicians who studied under Osler and have paid written homage to him would be a book in itself.

As bibliophile and classical scholar, Dr. Osler is likely unmatched in all medicine. His personal library of some 7,600 bound volumes on the history of medicine and science, bequeathed to McGill University, is catalogued in Bibliotheca Osleriana, itself an annotation of great scholarship. His libraries of clini-

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cal medicine and the humanities have gone to Johns Hopkins. That Osler's classical learning was vast, his nonmedical writings easily indicate, and the statement that he could have held a chair at Oxford in the humanities as easily as in medicine is attributed to various commentators.

The best known of Osler's non-clinical writings are *Aequanimitas, An Alabama Student,* and *A Way of Life. The Student Life,* edited by Dr. Richard E. Verney, is an excellent abstract of these writings.

Precepts

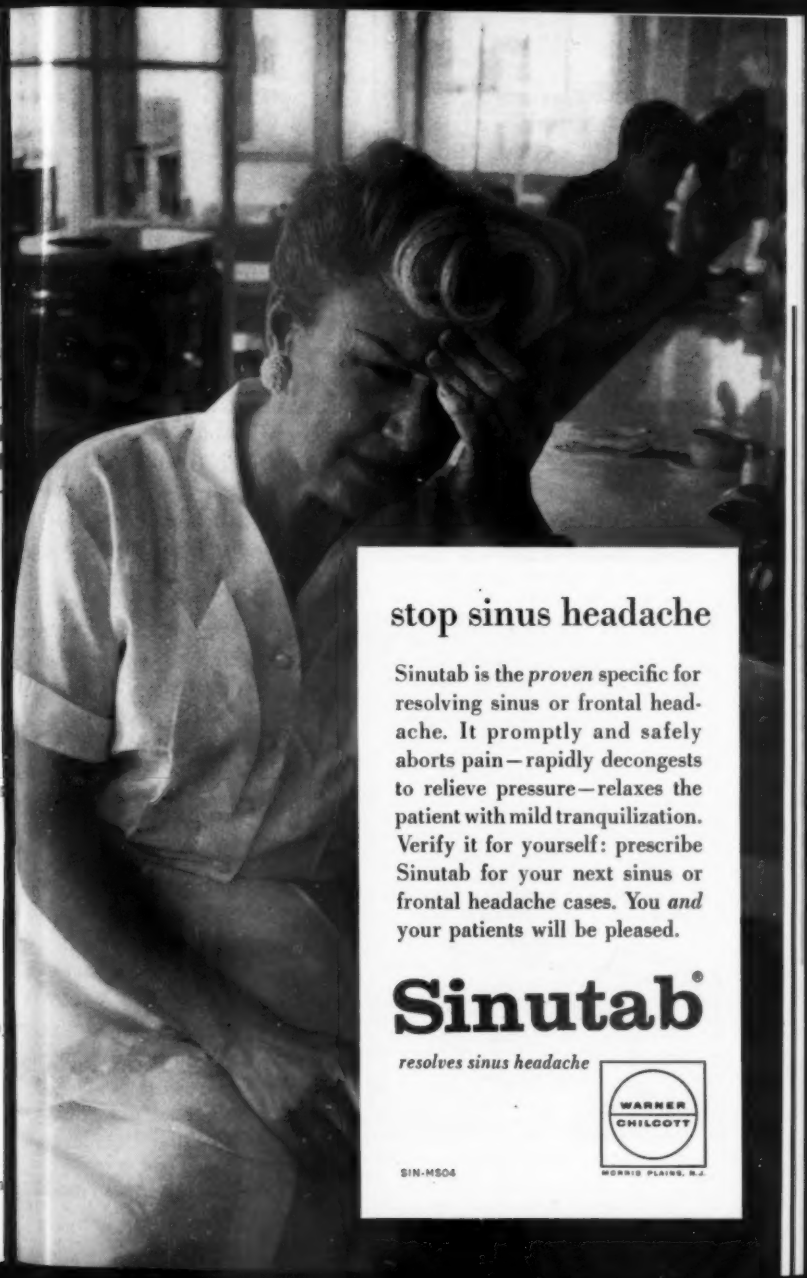
Dr. William Welch said of Osler that he was "probably the greatest figure in the medical world; the best known, the most influential, the most beloved. . . . His life embodied his precepts, and his students cherished his words." A series of these precepts, *"Osler Said This . . ."* will appear in future issues of RESIDENT PHYSICIAN. Their modernity and insight are striking, and all doctors, young and old, will find in them wisdom and inspiration.

Osler Said This . . .

ABOUT ADMITTING YOUR MISTAKES

Start out with the conviction that absolute truth is hard to reach in matters relating to our fellow creatures, healthy or diseased, that slips in observation are inevitable even with the best trained faculties, that errors in judgment must occur in the practice of an art which consists largely of balancing probabilities—start, I say, with this attitude in mind, and mistakes will be acknowledged and regretted; but instead of a slow process of self-deception, with ever increasing inability to recognize truth, you will draw from your errors the very lessons which may enable you to avoid their repetition.

WILLIAM OSLER, M.D., 1849-1919



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What's the Doctor's Name?

He was born in the family of a merchant in Thorn, East Prussia, on February 19, 1473. When he was ten his father died and he was adopted by his uncle, a Catholic priest. At the age of 18, he went to Cracow, then the capital of Poland, and studied at the University. There he read the Latin classics and was introduced to arithmetic and astronomy.

To continue his education his uncle sent him to Bologna to study law. His wide range of interest, however, covered many other branches of knowledge as well, particularly mathematics and astronomy. At Bologna he spent four years; it was there that he began to observe the heavens.

In 1500, he went to Rome to take part in the great Easter celebration of the Jubilee Year. He remained in Rome for a year, giving lectures on astronomy and mathematics.

Later, he attended the Canon Law School at the University of

Padua and, in 1503, was awarded the degree of doctor of canon law at Ferrara. Only then did he return to the study of medicine.

At the age of 33, he returned to Heilsburg in Ermland to live with his uncle, a bishop, and served as his political and administrative assistant. After the death of his uncle, in 1512, he moved to Frauenberg where he remained the rest of his life.

As a physician he treated many noblemen and high church officials and was better known as a medical man than as an astronomer. Today he is remembered primarily as an astronomer who developed a revolutionary theory about the movement of planets. In Heilsburg he put his theory into writing. He postulated that the earth and all the planets move around the sun in concentric circles—this is at a time when it was believed that planets and sun moved around the earth.

He kept the manuscript locked up for almost 30 years. It was published under the title "Concerning the Revolutions of Heavenly Bodies," in 1543, the year of his death. Can you name this doctor? Answer on page 186.

SEE Page 146

VIEWBOX DIAGNOSIS
(from page 19)

VOLVULUS OF THE SPLENIC FLEXURE

There is a marked redundancy in the region of the splenic flexure with rotation, producing marked obstruction. The descending and sigmoid portions are pulled up by the rotation putting them under tension.

●

WHAT'S THE DOCTOR'S NAME?
(Answer from page 184)

NICOLAUS COPERNICUS

●

RESIDENT RELAXER
(puzzle on page 25)

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